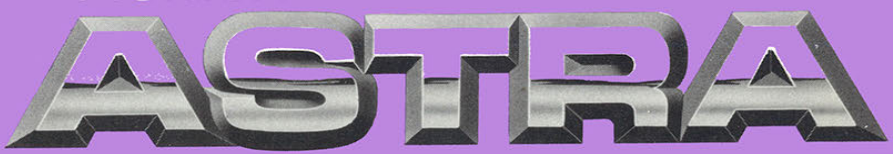
OFFICIAL SPONSOR

AUSTRALIAN DEFENCE

AMERICA'S CUP 1987

Holden



OWNER'S HANDBOOK

LC SERIES

Owner's Name .....

Address .....

Town .....

State ..... Postcode .....

Model Name .....

Reg. No. ..... Eng. No. .....

Vehicle Identification No. (VIN) .....

Date of Purchase ..... Odometer Reading .....

Vehicle Identification Certificate

Selling
Dealer's
Stamp &
Signature .....

CHANGE OF ADDRESS/OWNERSHIP

GMH requests that owners who change their address (or name) or subsequent owners who purchase this vehicle, complete and return by mail one of the forms on pages 127-129.

This notification is important even after the expiration of the original vehicle warranty in order that GMH will be able to contact you should the need arise.

Printed Dec. 1985 (Run 1)

Part No. 99902-V9812

GENERAL MOTORS-HOLDEN'S SALES PTY. LIMITED

(Incorporated in Victoria)

New Vehicle Warranty

GENERAL MOTORS-HOLDEN'S SALES PTY. LTD. HEREBY WARRANTS THAT IT WILL MAKE GOOD, WITHOUT CHARGE, ANY DEFECT WHICH APPEARS IN THE VEHICLE IDENTIFIED IN THE VEHICLE IDENTIFICATION CERTIFICATE FOUND ON THE INSIDE OF THE FRONT COVER.

Provided

1. the defect has been notified to an authorised GMH Dealer or Service Dealer:
   (a) before the vehicle has travelled a distance of 20,000 km, or:
   (b) within 12 months of the date of delivery of the vehicle to the first retail purchaser (or in the case of a Demonstrator vehicle within 12 months of the date when it was first placed into service by the Dealer) whichever comes first, and
2. the vehicle has been returned to an authorised GMH Dealer or Service Dealer

And

3. the Dealer has determined that the defect complained of *is* one of material or workmanship and is *not* caused by:
   (a) misuse or abuse of the vehicle such as by racing, rallying, overloading, etc. or by neglect
   (b) operation of the vehicle after it is known to be defective
   (c) accident or deliberate act
   (d) atmospheric fallout or flood, hail, salt, etc.
   (e) failure to carry out proper maintenance service
   (f) use of incorrect types and grades of fuel, oil or lubricants
   (g) alteration or modification of the vehicle
   (h) the fitting of parts or accessories not marketed by GMH
   (i) any work carried out on the vehicle by someone other than an authorised GMH Dealer or Service Dealer.

BY THE DEALER (or as otherwise decided by GMH Sales) MAKING GOOD THE DEFECT BY REPAIR OR, AT THE OPTION OF GMH SALES, BY REPLACEMENT.

Excluded from this Warranty are

- defects in tyres (these being warranted by their manufacturers), and services such as engine tuning, brake adjustment, replacement of air and oil filters, etc. which are required as part of normal vehicle maintenance.

This Warranty applies only to vehicles operated in Australia and is given to the person who is entitled to possession of the vehicle whether as owner, lessee or otherwise and is given in addition to all rights conferred by law on that person.

Owners of vehicles operated outside Australia should consult their local dealer regarding the warranty applicable to their vehicles.

SPECIAL NOTICES TO OWNERS

AVAILABILITY OF SERVICE AND PARTS AFTER WARRANTY

General Motors-Holden's Limited and General Motors-Holden's Sales Pty. Ltd. have franchised dealers in many parts of Australia for the sale of service parts and the provision of service to owners of GMH's products. Every endeavour is made to ensure that such dealers carry adequate stocks of service parts and are equipped to provide satisfactory service, but neither General Motors-Holden's nor General Motors-Holden's Sales Pty. Ltd. makes any promise that after the expiration of the warranty such parts or service facilities will be available, or available at any specific location or at any particular time.

UNAUTHORISED STATEMENTS IN RELATION TO GMH PRODUCTS

No GMH dealer or other person is authorised or permitted to give or make any statement assertion or undertaking in relation to the quality, performance, characteristics, descriptions or fitness for any purpose of any GMH product or in connection with the supply of any GMH product, which is at variance with any written statement assertion or undertaking on any of these subjects given or made by General Motors-Holden's Limited or General Motors-Holden's Sales Pty. Ltd. in its published sales literature, and neither company accepts any liability for any such unauthorised action.

WARRANTY ON GMH REPLACEMENT PARTS

General Motors-Holden's Limited warrants in respect of GMH parts and accessories required as replacement parts, that it will make good by repair or at its option by replacement any defect occurring in any such GMH parts and accessories within 12 months from the date of acquisition or in the case of a GMH part or accessory which has been installed in a vehicle by a GMH Dealer or Service Dealer before such vehicle has travelled a distance of 20,000 kms from the date of installation, whichever first occurs.

HOLDEN ASTRA LC SERIES OWNER HANDBOOK

This handbook should be considered a permanent part of this car. It should stay with the car when sold to provide the next owner with important operating, safety and maintenance information.

SECTION	CONTENTS	PAGE
1	BEFORE DRIVING YOUR VEHICLE	
	A/ Warranty — Questions & Answers	6
	B/ Safer Motoring — Precautions	9
	C/ General Exterior & Interior Items	12
	D/ Steering Column Controls	21
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This handbook applies to all Astra models and therefore may contain explanations of some equipment not installed in your vehicle.

ALL INFORMATION, ILLUSTRATIONS & SPECIFICATIONS IN THIS HANDBOOK ARE BASED ON THE LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF PRINTING. GENERAL MOTORS-HOLDEN'S LIMITED RESERVES THE RIGHT TO MAKE CHANGES AT ANY TIME WITHOUT NOTICE AND WITHOUT INCURRING ANY OBLIGATION.

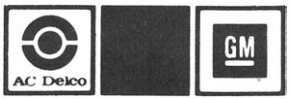
INTRODUCTION

We thank you for choosing Holden and want to assure you of our continuing interest in your motoring pleasure and satisfaction.

This handbook has been prepared to acquaint you with the operation and maintenance of your new vehicle and to provide important safety and warranty information.

When it comes to service, remember that your GMH Dealer has the trained personnel and specialised equipment to correctly service your vehicle. Your dealer invites you to return for all of your service needs both during and after the warranty period.

To help dealers handle your needs, GMH has a number of Zone Offices throughout the country. If you have a problem that has not been handled to your satisfaction follow the steps in Section 4 of this handbook.



For the proper maintenance and performance of the vehicle, use only genuine General Motors parts which are identified by one of the trademarks shown above.

THE USE OF PARTS, ADDITIVES AND/OR TREATMENTS OTHER THAN THOSE MARKETED BY GENERAL MOTORS MAY BE DETRIMENTAL TO YOUR VEHICLE'S PERFORMANCE AND SAFETY AND MAY VOID YOUR NEW VEHICLE WARRANTY.

SECTION 1A WARRANTY — QUESTIONS & ANSWERS

This section is designed to assist you in understanding the terms of the GMH Warranty provided with your new vehicle.

The following are some of the most frequently asked questions for which detailed answers have been provided.

1. **Q. How do I go about obtaining GMH Warranty Service?**

   A. It is the responsibility of the Selling Dealer to provide GMH Warranty Service therefore you should take your vehicle to that Dealer whenever GMH Warranty Service is required. However, if it is not possible for you to take your vehicle to the Selling Dealer (for example — if you are on a long trip, have shifted to another location or have other difficulties) you may take your vehicle to any other Authorised GMH Dealer. The Owner and Vehicle Identification details recorded on the inside front cover of this handbook are required by the Servicing Dealer in connection with the provision of GMH Warranty Service. Therefore, you should present this Handbook to the Servicing Dealer whenever you request GMH Warranty Service.

   NOTE: The 1,000 kilometre Warranty Service may be carried out by another GMH Dealer provided you have a letter of introduction from the Selling Dealer. This letter must be arranged prior to obtaining the 1,000 kilometre service.

2. **Q. What should I do if in an emergency GMH Warranty Service is required and an Authorised GMH Dealer is not available to provide such service at that time?**

   A. If in an emergency a repair, replacement or adjustment of a kind covered by the GMH New Vehicle Warranty is required to enable your vehicle to be operated safely and it is not practicable for you to have that service performed by the Selling Dealer or another Authorised GMH Dealer, the service, but only to the extent that it is necessary to enable your vehicle to be operated safely may be performed by any other qualified service technician or repairer. A claim for the reasonable cost of such service may be made on GMH through the Selling Dealer or the Authorised GMH Dealer who would normally provide you with GMH Warranty Service. When such emergency service has been performed by other than the Selling Dealer or an Authorised GMH Dealer you should take your vehicle to the Selling Dealer or an Authorised GMH Dealer for inspection of the service and/or the completion of any required GMH Warranty Service as soon as possible.

3. **Q. What should I do if my vehicle becomes unsafe or inoperative as a result of a defect which is covered by the GMH New Vehicle Warranty?**

   A. If, as a result of a defect which is covered by the GMH New Vehicle Warranty your vehicle cannot be driven or is unsafe to drive you should contact the nearest Authorised GMH Dealer as soon as possible and arrange for that Dealer to carry out the required GMH Warranty Service.

4. **Q. Will I have to pay for any costs or expenses in connection with the provision of GMH Warranty Service?**

A. All parts and labour used and supplied in carrying out GMH Warranty Service at the premises of the Servicing Dealer are free of charge. Whenever GMH Warranty Service is to be carried out by the Servicing Dealer it is your responsibility to deliver your vehicle to the Servicing Dealer's premises and to collect it from those premises when the Warranty Service has been completed.

If as a result of a defect which is covered by the GMH New Vehicle Warranty your vehicle cannot be driven or cannot be driven safely and you arrange for the nearest Authorised GMH Dealer to carry out the required GMH Warranty Service, such reasonable costs and expenses as are incurred in moving your vehicle to that Authorised GMH Dealer's premises or, if that Dealer so elects, in performing the required GMH Warranty Service at the place where your vehicle is located (or at some other location) will be covered by the GMH New Vehicle Warranty.

5. **Q. Are damage or injury, loss of time, inconvenience, commercial or other direct or indirect loss covered by the GMH New Vehicle Warranty?**

A. No, these items are not covered. The GMH New Vehicle Warranty covers only the repair, replacement or adjustment at the Servicing Dealer's premises of those parts of your vehicle which are found by GMH to be defective in materials or workmanship during the GMH Warranty Period. No other types of claim for compensation of whatever nature, notwithstanding that the same may have resulted from or have arisen as a consequence of a defect in materials or workmanship in your vehicle or in any part of your vehicle, will be recognized under the GMH Warranty. The rights and remedies which are available to you under any relevant Statutory Enactment or otherwise at law in connection with any such claim for compensation must be pursued outside the ambit of the GMH Vehicle Warranty.

6. **Q. Will I have to pay for Maintenance costs during the Warranty Period?**

A. Maintenance costs, since they do not arise from defects in materials or workmanship, are not covered by the GMH Vehicle Warranty. However, the scheduled 1,000 kilometre service specified in Section 6B of this handbook is free of charge (except for any lubricants used) provided that your vehicle has been operated under Normal Conditions (refer "Vehicle Operating Conditions" Section 6B of this handbook) and provided also that no modifications (other than a modification made by or at the direction of GMH) has been made to your vehicle which adversely affects the Performance and/or Compliance of your vehicle. The Maintenance Schedules in this handbook specify the minimum maintenance requirements for your Vehicle operating under Normal Conditions. If you operate under Extreme Conditions (refer "Vehicle Operating Conditions", Section 6B) your vehicle may require more frequent maintenance services. See your Servicing Dealer for advice on these matters.

The Maintenance items, except where they are required as a result of defects in materials or workmanship, for which you will be required to pay include:—

- Engine tune-up — includes replacing spark plugs.
- Replacement of all filters.
- Cleaning or flushing of fuel, cooling, brake, engine, transmission, differential or power steering systems — after 1,000 kilometres.

- Adding to or replacing lubricants.
- Adding to or replacing air conditioning refrigerant — after 5,000 kilometres.
- Any necessary adjustments to drive belts, transmission, clutch, parking brake, etc.
- Wheel balancing — after 5,000 kilometres.
- Wheel alignment.
- De-dusting or de-glazing of brake linings or pads — after 1,000 kilometres.
- Battery re-charging.
- Paint, bright metal finish and trim, due to normal deterioration.
- Body panel, adjustment — after 1,000 kilometres.
- Door, engine hood or rear compartment lid lock adjustments.
- Glass or channel adjustments — after 1,000 kilometres.
- Body rattles, squeaks and general tightening of bolts, fastening and fittings — after 1,000 kilometres.
- Chipped glass or breakage.
- Torn or damaged floor mats or carpets.

7. **Q. Are my tyres covered by the GMH Vehicle Warranty?**

A. No. The tyres fitted to your vehicle are covered by a separate warranty provided by the tyre manufacturer.

This warranty arrangement does not deprive you of any of those rights and remedies which are conferred upon you by Statutory Enactment.

Either the Selling Dealer or the Servicing Dealer will assist you by discussing any queries which you may have with respect to the tyre manufacturer's warranty, with the tyre manufacturer's representatives.

8. **Q. Are GMH Parts and Accessories covered by warranties?**

A. If you purchase a GMH Part or Accessory from an Authorised GMH Dealer it will be warranted by that Dealer under the GMH Parts and Accessories Warranty against defects in materials or workmanship for a period of 12 months from the date on which you purchased it. In the case of a G.M.H. Part or Accessory which has been installed in a vehicle by a GMH Dealer or a Service Dealer it will be warranted for a period of 12 months or a distance of 20,000 kms from the date of installation, whichever occurs first.

Maintenance items such as filters, spark plugs, wiper blades and brake pads/linings will require replacement as part of normal vehicle maintenance. Such replacements are not the subject of this warranty.

9. **Q. What should I do if I have any problems in obtaining GMH Warranty Service?**

A. If you encounter any problems in obtaining GMH Warranty Service you should firstly discuss your problems with the Service Manager of the Servicing Dealer. If you cannot resolve your problem with the Service Manager then try and resolve it with the Dealer himself. If you still have a problem at this stage then you should contact the GMH Owner Relations Manager in your State. The addresses of these Owner Relations Managers are listed in Section 4 of this handbook.

SECTION 1B SAFER MOTORING — PRECAUTIONS

This handbook contains many CAUTION notices which are there to help safeguard yourself and your vehicle.

Please read these notices carefully and follow all instructions given.

Several safety items, including some which appear later in this handbook, are presented here as a safety summary. For a more detailed explanation of some items, refer to the appropriate section of this handbook.

ENGINE EXHAUST GAS

Avoid inhaling exhaust gases because they contain carbon monoxide, which is a dangerous gas that can cause unconsciousness and is potentially lethal.

DO NOT RUN THE ENGINE IN AN ENCLOSED AREA SUCH AS THE GARAGE ANY LONGER THAN IS NEEDED TO MOVE THE VEHICLE.

DO NOT SIT IN A PARKED VEHICLE FOR ANY EXTENDED PERIOD OF TIME WITH THE ENGINE RUNNING.

If at any time you think exhaust fumes are entering the car, have the cause determined and corrected as soon as possible.

SEAT BELTS

Various road laws require the wearing of seat belts. It is important that the habit of using these should be developed by yourself and others in the vehicle. In the interest of safety, seat belts should be checked regularly. Your Dealer will inspect and check the belts for you as part of the normal Maintenance Service. Never attempt to modify or change the seat belt away from the original specification as this will affect the operation of the belts and reduce their effectiveness in preventing injury in an accident.

ANTI-THEFT IGNITION STEERING LOCK

DO NOT turn the ignition switch away from the ON position while the vehicle is in motion as this renders ineffective any power assisted equipment fitted to your vehicle.

Never remove the key while the vehicle is in motion as this will lock the steering of the vehicle and render it inoperative.

BRAKES

Driving through water may affect performance. Applying the brakes lightly will indicate whether they have been affected. To dry them quickly, lightly apply the brakes while maintaining a slow forward speed with an assured clear distance ahead until brake performance returns to normal.

Brake pedal travel should not be obstructed by ill-fitting floor mats or any other material under the pedal which causes interference with normal pedal movement.

Also your seat should be positioned so that you can reach the brake pedal satisfactorily under all braking conditions.

Power Assisted Brakes

Power assisted brakes which are fitted to your vehicle utilise vacuum from the engine when it is running. Never let the vehicle run down steep grades without the engine running. **Never** coast with the engine switched off.

COOLING SYSTEM

DO NOT REMOVE THE RADIATOR CAP IF THE ENGINE AND RADIATOR ARE HOT.

After the engine has cooled sufficiently the cap should be rotated slowly to the first stop, which permits the pressure to release slowly through the overflow pipe. Before doing this, cover the cap with an old rag or cloth to avoid possible scalding.

Temperature Controlled Electric Radiator Cooling Fan

When working around the engine compartment with the engine running, keep clear of the fan as it may start operating without warning.

PETROL FUMES

Always stop the engine and do not smoke or allow open flames or sparks near the vehicle when refuelling. If petrol fumes are noticed while driving, the cause should be determined and corrected without delay.

PARKING

When leaving your vehicle unattended:

1. Apply the parking brake.
2. Shift transmission selector as follows:
   Manual Transmission — If car is facing downhill, place in Reverse gear.
   — If car is facing uphill, place in First gear.
   Automatic Transmission — Place in 'Park'.
3. Turn ignition key to Lock and remove key.
4. Shut all windows and lock all doors.

TYRE TRACTION

A decrease in driving, cornering and braking traction occurs when water, snow, ice, gravel or other material is on the road surface. Driving practices and vehicle speed should be adjusted to the road conditions.

LOOSE ARTICLES

Do not leave loose articles or luggage in the passenger compartment. Whenever possible, stow articles in the luggage compartment.

VEHICLE BATTERY

Batteries emit an explosive gas mixture which may be ignited by sparks or naked flames. You should therefore keep sparks and flames away from the battery at all times and never smoke near a battery.

Batteries contain sulphuric acid. If acid contacts skin or clothing, flush immediately with lots of water. In case of eye contact, flush with lots of water and contact a doctor immediately.

Take care with all metal objects and tools including items you may wear (e.g. jewellery, rings and metal watchbands) near battery terminals. Metal objects that touch battery terminals can cause sparks and serious heat burns to the user or wearer.

CATALYTIC CONVERTER

A catalytic converter for emission control is installed in the exhaust system. Inside this converter, exhaust gases are burned at high temperature to help reduce pollutants.

Certain engine malfunction, particularly involving the electrical, carburetion, fuel injection or ignition systems, will result in large amounts of unburned fuel entering the exhaust system, causing the converter to reach elevated temperatures.

If the engine misfires, or if noticeable loss of performance or other unusual operating conditions are detected, discontinue operation of the vehicle and have it inspected by an authorized GMH dealer.

CAUTION

(a) Use UNLEADED PETROL ONLY of 91 octane rating. Leaded petrol will seriously damage the catalytic converter.

(b) After starting the engine and allowing it to run for 30 seconds, reduce idling speed by slightly depressing the accelerator pedal and quickly releasing it.

(c) Keep an eye on your fuel gauge; running out of petrol could possibly cause damage to the catalytic converter.

(d) Refrain from racing the engine.

(e) Be careful where you park or drive. As with any vehicle, do not park or operate this vehicle in areas where combustible materials such as dry grass or leaves can come in contact with a hot exhaust system.

SECTION 1C GENERAL EXTERIOR AND INTERIOR ITEMS

KEYS AND LOCKS

Key

Keep a record of the key number (stamped on key head) so that your GMH Dealer will be able to supply a replacement key if required.

Remove the key from the switch and carry it with you when leaving your car unattended.

Door Lock

All doors can be locked from the inside by pushing the lock knob down after closing the door. To unlock, pull up.

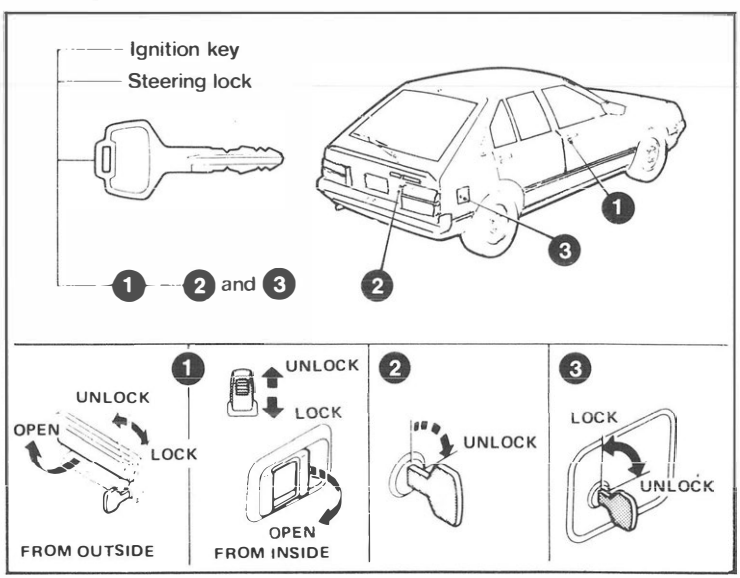
LOCKING FROM OUTSIDE:

Front doors: push lock knob down, lift outside handle and close doors firmly.

Alternatively they may be locked by using the key.

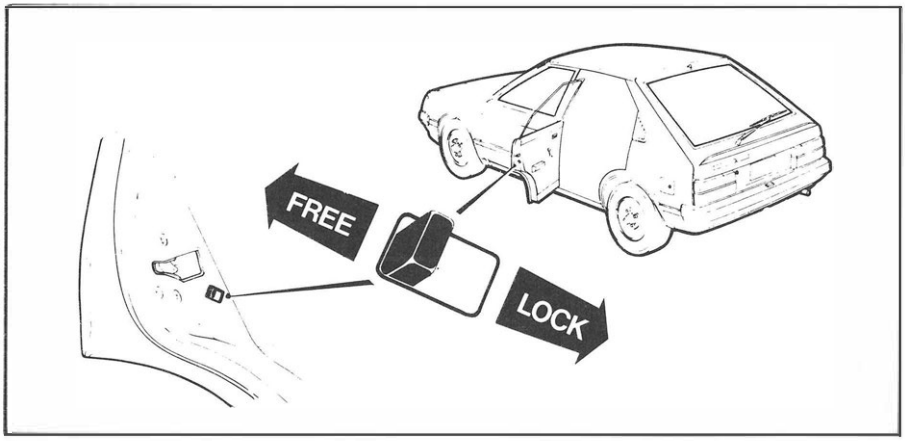
Rear doors: push lock knob down and push door closed.

Be sure that the key has not been left inside the car before locking doors.



Child Safety Lock

Both rear doors are fitted with child safety locks. Once the lock button on the child safety lock has been pushed to 'LOCK' position and the door closed, it can only be opened by using the outside handle. NOTE: the child safety lock cannot be unlocked from inside the car once the door has been closed.



CAUTION: For safety, you should check that the lock is operating correctly, after setting, by attempting to open the door from the inside of the vehicle.

Rear Hatch Lock

To open, insert key in lock and turn it clockwise. The hatch lock will release and the hatch may now be raised. When fully open the lid will be supported on telescopic gas struts. To close lid, pull down and push firmly closed.

NOTE: Do not pull on or rest against the struts.

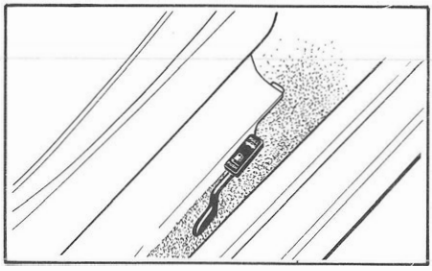
TONNEAU COVER

The tonneau cover, where fitted, can be left down or attached by cords to the hatch lid so that as the lid is opened the cover will be raised to expose the lower luggage space.

CAUTION: To pevent entry of dangerous exhaust fumes into the passenger compartment, the rear hatch should be closed during vehicle operation. However, if it is necessary to leave the hatch open while transporting bulky cargo, all windows must be closed to avoid vacuum build-up. Open fresh air heater vents and switch to highest blower speed.

REAR HATCH & FUEL FILLER FLAP — REMOTE RELEASE

(Where Fitted)



This lever is situated on the floor between the drivers seat and the drivers door.

- To unlock rear hatch — pull lever up. The hatch can then be opened without using the key.
- To unlock fuel filler flap — push lever down. The flat will open automatically.

GLOVE BOX

To open the glove box, turn the catch knob anti-clockwise and allow the lid to drop open.

To close, push shut.

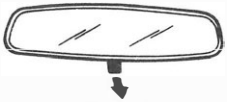
WINDOW CONTROLS

Rotate the window control handle to raise or lower the window to the desired position.

REARVIEW MIRRORS

Adjust the outside and inside mirrors before driving. For safe driving, rear vision must be unimpaired. Observe State regulations regarding rear view mirrors for vehicles towing a trailer.

Inside Mirror



The inside mirror can be moved on its pivot to obtain optimum rear vision. If the vehicle is equipped with a day/night mirror it should be kept in the "day" position except when following headlights become bothersome. For "day" position, the adjusting lever should be moved towards the windscreen.

Outside Door Mirror(s)

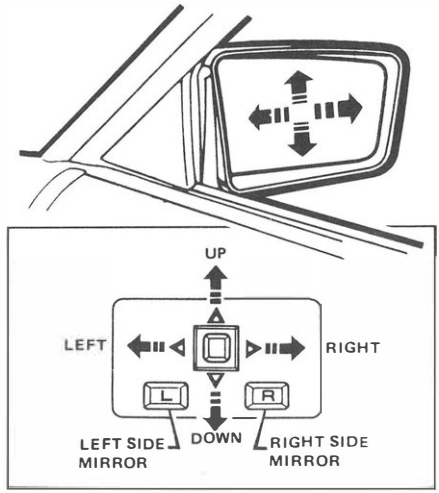
(Manual Adjust)

These mirror(s) may be adjusted by manipulating the lever that protrudes through the door to the inside of the car.

Outside Door Mirrors

(Electric Adjust)

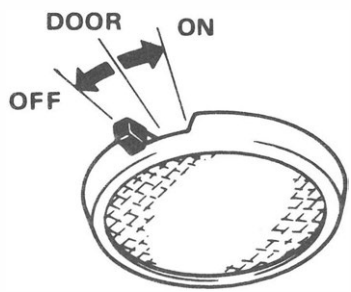
Adjustment of these mirrors (where fitted) is achieved via a remote control switch mounted on the right hand end of the lower dash panel.



INTERIOR LIGHT

The interior light switch has three positions. 'OFF', 'ON' and 'DOOR'. When the switch is moved to the 'ON' position the light will come on. When moved to the 'DOOR' position the light will come on and go off with the opening and closing of the front doors. In the 'OFF' position the light stays off all the time.

On SLE models the light is operated by all four doors.



LUGGAGE COMPARTMENT LIGHT

This light has a switch built into the rear hatch lock. The light will come on and go off with the opening and closing of the rear hatch.

SUN VISOR

The sun visor may be pulled down to any angle from flat against the headlining to flat against windscreen. It can also be unclipped from its inner pivot and turned around to give shade from sunlight coming in through the side window.

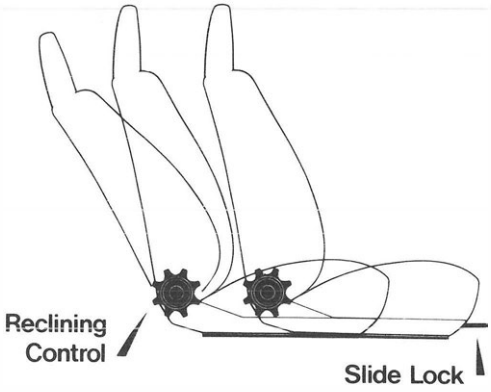
ASSIST GRIPS AND COAT HOOKS

The SLE model is equipped with two rear and one front passenger assist grip. The rear grips have a moulded coat hook on the top side of the grip. The SLX model has two coat hooks in the rear passenger compartment in lieu of assist grips.

FRONT SEAT ADJUSTMENT

Fore and aft adjustment. While sitting in the seat, pull the slide lock on the outside of the seat up and slide seat into the desired position.

CAUTION: Do not adjust the driver's seat while driving. The seat may abruptly jerk, which could cause the driver to lose control.



Reciining. Whiie sitting in the seat turn the notched wheel on the outside rear of the seat until the desired angle is obtained.

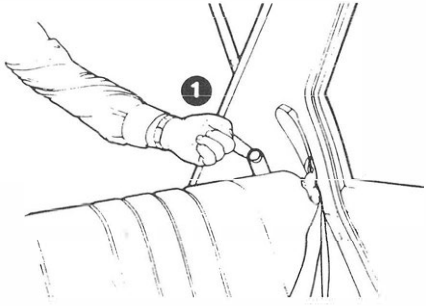
CAUTION: To avoid reducing the effectiveness of seat belts it is recommended that reclining seats be used in no more than a semi-reclined position when the vehicle is moving. The fully reclined position should be used only when the vehicle is stationary.

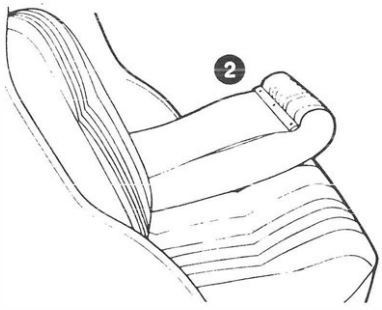
Lumbar Support — Driver's Seat (where fitted). Turn the notched wheel on the inside rear of the driver's seat till the desired lumbar support is obtained.

Folding Rear Seats

The rear seat is split and either or both seat backs may be folded down to increase luggage space.

To fold seats down, ensure that seat belts are lying flat on seat, pull ring (1) on top outer end of seat back up and fold seat forward (2).





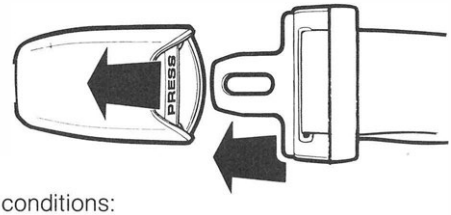
SEAT BELTS

Study this section carefully. It is important that you understand how to correctly wear a seat belt. You should also ensure that all occupants wear a properly adjusted seat belt or child restraint system if applicable, whenever the vehicle is moving.

Retractor Belts (3-Point)

1. Before wearing a seat belt adjust the seat to your normal driving position.
2. The belt tongue is installed to the belt as illustrated. The upper part of the belt serves as a shoulder belt and the lower part as a lap belt.
3. Slowly pull out the belt and insert the tongue into the buckle until you hear a positive **"click"** signifying the belt is safely locked.

   To take up any slack, grasp the upper part of the belt and pull upwards until the lap section is fitting firmly, and as low as possible across your hips. Any extra belt length will retract automatically.
4. To unfasten the belt, press the red release button on the buckle and the belt will retract and stow automatically.



The belt reel will lock under the following conditions:

- When the webbing is pulled quickly from the reel. Under normal circumstances the belt retractor permits the belt to move freely with the occupant.
- By rapid vehicle deceleration or roll over. The free movement of the webbing should stop under hard braking.

NOTE: The belt reel may lock-up if the vehicle is on a steep incline. It will become free on level ground.

Rear Lap Belt (2-point)

1. Insert the tongue into the buckle until you hear a snapping sound.
2. To adjust the belt, hold the adjusting device at a right angle to the belt and pull the lap belt or the free end of the lap belt.
3. To unfasten the belt, press the button on the buckle.

REAR 2 POINT (Centre Belt)

WARNING: Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis, or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.

Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.

Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.

It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.

Belts should not be worn with straps twisted.

Each seat belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.

No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.

The positioning of the tongue restrictor must never interfere with or stop the belt from fully retracting.

Seat Belt Maintenance

- Clean the belts by brushing with a mild soap solution and lukewarm water. Wipe with a cloth and dry them in the shade.
- Do not allow the belts to retract until they are completely dry.
- Do not use any other chemicals or try to bleach or re-dye the belts.
- Periodically check the belts and their metal components such as buckles, tongues, retractors, flexible wires and anchors for deterioration or damage.
- If any component is found to be damaged or worn, the belt should be replaced as an assembly.

CHILD RESTRAINT

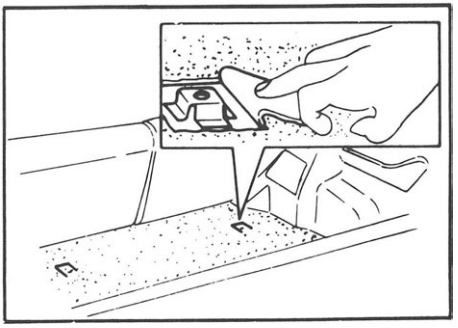
Your vehicle is designed to accommodate a child restraint on the rear seat. When using a child restraint, carefully read and follow the Installation Instructions attached to it.

Anchorage Location

Anchorages are located under the slits of the luggage floor carpet.

When installing a child restraint it is essential that the correct anchor bolt be used.

If you have any queries regarding the installation of a child restraint please see your GMH Dealer for advice.



WARNING: Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts or harnesses.

SECTION 1D STEERING COLUMN CONTROLS

IGNITION SWITCH

The ignition switch is a five position switch and controls the ignition, accessories and starter circuits as well as the steering lock.

"Lock" Normal Parking Position

The ignition key can be inserted and removed at the lock position only. When the key is turned to "lock", removed and the steering wheel turned, an audible click will be heard as the locking plunger drops into position.

To unlock, insert the key and while turning to "off", move the steering wheel slightly from side to side to ease pressure on the steering lock.

"Off"

This position allows the engine and accessories to be switched off without locking the steering.

"Acc" (Accessories)

When this position is selected all accessories controlled by the switch can be used.

"On"

This is the normal operating position and not only turns on the ignition and other devices controlled by this position, but also operates accessories.

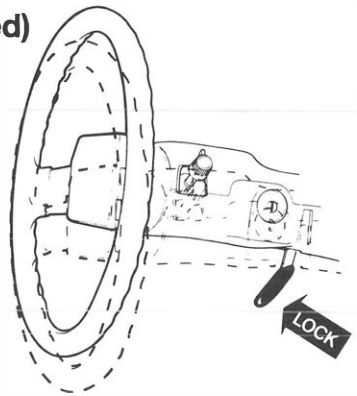
"Start"

When the key is turned to this position it will operate the starter motor and crank the engine. The key will automatically return to "on" when it is released.

CAUTION: Do not turn the engine off while the vehicle is in motion as this renders ineffective any power assisted equipment operated off the engine such as the brake booster. Also never remove the key while the vehicle is in motion as this will lock the steering of the vehicle.

TILTING STEERING WHEEL (if fitted)

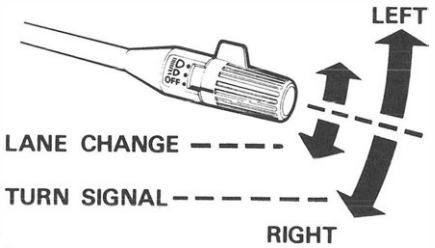
To set the steering wheel to the desired angle, pull the lock lever down, move the wheel up or down and lock in position by pushing the lock lever up as far as it will go.



TURN-SIGNAL/LIGHT-SWITCH LEVER

Turn Signal

To signal a turn, flick the lever up for a left turn and down for a right turn. This will cause the indicator light on the side selected to flash. As the turn is completed and the steering wheel returns to the straight ahead position the signal will be cancelled. If however you are executing a gradual turn, the signals may not cancel owing to the steering wheel not being turned far enough to operate the cancelling mechanism.

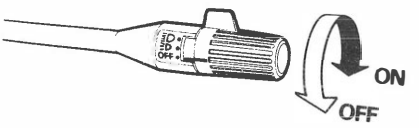


Lane Changing

To signal a lane change, move the lever only part way in the direction of turn till the indicator light flashes and hold it there while the lane change is completed. The signal will automatically cancel when the grip on the lever is released.

Light Switch

The light switch is located on the end of the turn signal lever. The lights are operated by turning the knob in a forward direction. The first position turned to will operate the following lights: tail, number plate, parking, automatic transmission control lever indicator (where fitted) heater or air-conditioner control panel and instrument panel lights.

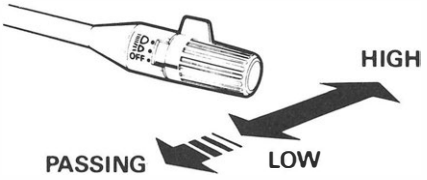


The second position will operate the headlights and all the first position lights.

When the headlights are turned on the digital clock (where fitted) display will be dimmed.

High/Low Beam

When the turn signal switch is pushed down, away from the steering wheel, the high beam will come on. To revert to low beam, flick the switch back up.



Passing Light

The passing light (headlight — high beam) will come on when the turn signal lever is pulled fully up towards the steering wheel.

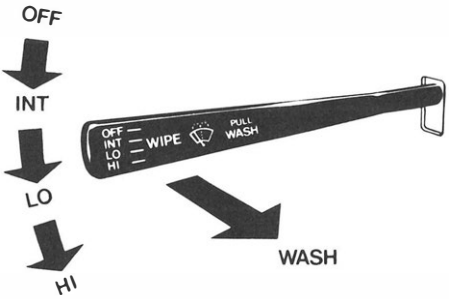
NOTE: All light switch functions can be selected and will operate regardless of the position of the turn signal switch.

Wiper and Washer Switch

The windscreen wiper is a two speed type and, where fitted, an intermittent function. The first position is for intermittent, the second for low speed, and the third, for high speed.

NOTE: When intermittent (if fitted) is selected there may be a slight pause before the wiper gives one sweep.

THIS IS NORMAL.



The wiper switch also controls the windscreen washer.

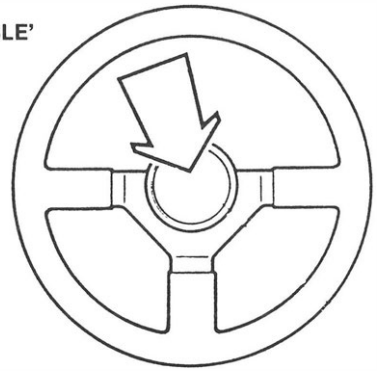
To operate the washer, lift the switch up towards the steering wheel. Don't operate the washer continuously for more than thirty seconds, or if the reservoir is empty, and don't operate the wiper when the windscreen is dry.

NOTE: If the wiper blades are ever frozen to the windshield, they must be lifted off and freed by hand before switching on the windshield wipers.

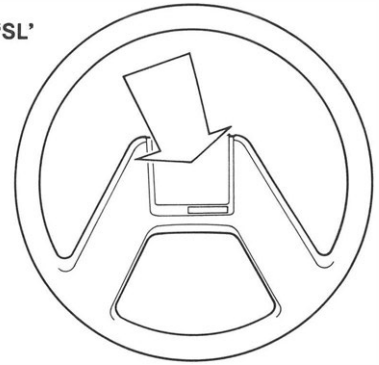
Horn

The horn may be sounded by pressing on the centre section of the steering wheel trim.

'SLE'



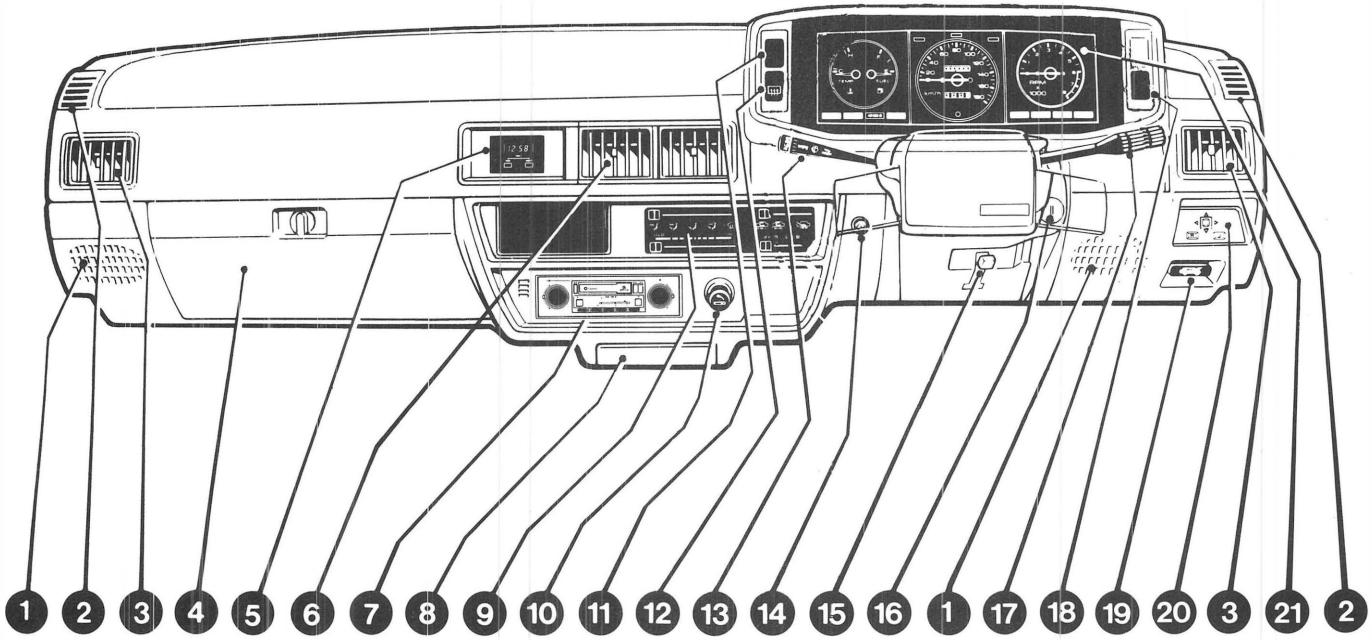
'SL'



SECTION 1E

INSTRUMENT PANEL AND CONTROLS

The instrument panel contains instruments, indicators, and controls necessary for the operation of many of the standard and accessory features. Review the instructions and illustrations contained in this section to acquaint yourself with the proper use of these instruments and controls. Glance at the instruments occasionally whilst driving to see if any indicator light is on, and to see that all meters and gauges are within the proper ranges.

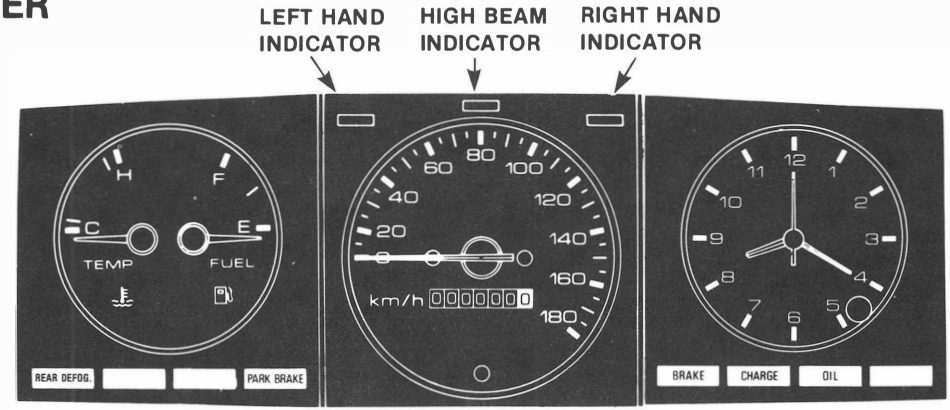


★ Standard on SLE model only.

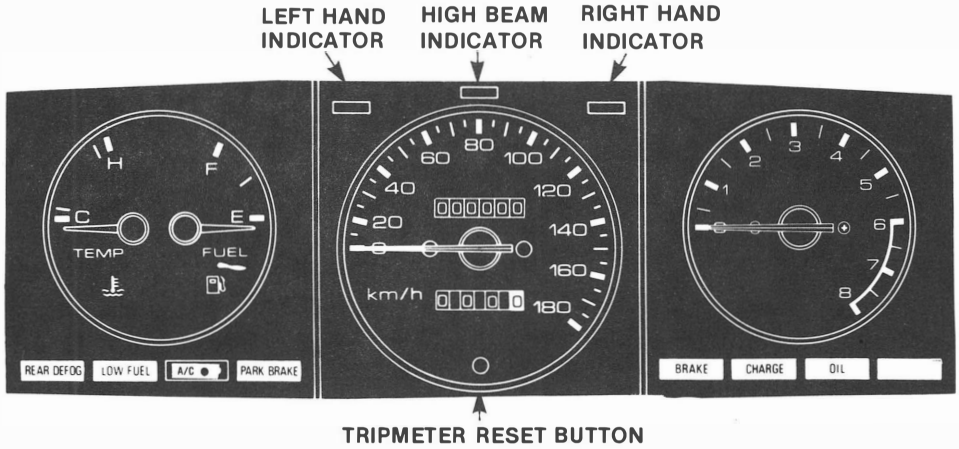
1 Radio speaker/s
2 Side defroster
3 Side ventilator
4 Glove box
5 Clock-Digital*
6 Centre ventilator
7 Radio or Radio/Cassette Player*
8 Ash tray
9 Heater or air-conditioner control
10 Cigarette lighter
11 Rear window wiper and washer switch
12 Rear window defroster switch
13 Windshield wiper and washer switch
14 Illumination control rheostat
15 Tilting steering wheel lock lever
16 Ignition switch and steering lock
17 Light/turn signal switch and headlight beam selector lever
18 Hazard warning flasher switch
19 Hood release handle
20 Outside mirror — Remote Control Switch*
21 Instrument cluster

INSTRUMENT CLUSTER

'SLX' MODEL
'SL' MODEL



'SLE' MODEL



SPEEDOMETER

The speedometer is graduated from 0-180 in kilometres per hour (km/h).

Incorporated in the face of the speedometer is an odometer which records the total kilometres travelled. Some models also have a tripmeter which can be set to record the distance travelled each trip. The tripmeter can be set back to zero by pushing the reset button. The coloured digit indicates tenths of a kilometre.

On models not equipped with a tripmeter, the odometer has a seven digit display with the last digit coloured and representing tenths of a kilometre.

TACHOMETER (SLE)

The electrically operated tachometer indicates the engine speed in revolutions per minute (R.P.M.). The tachometer dial is graduated from 0-8 in thousands of revolutions.

The digits are in two colours — ORANGE from 0 to 6,000 RPM for normal driving and RED from 6,000 RPM to 8,000 RPM. Do not drive with the needle in the RED zone for prolonged periods as this can lead to serious engine damage.

FUEL GAUGE

When the ignition key is turned to "ON" the fuel gauge will indicate the approximate amount of fuel in the tank.

Refer to "Specifications" Section 7 for fuel tank capacity.

COOLANT TEMPERATURE GAUGE

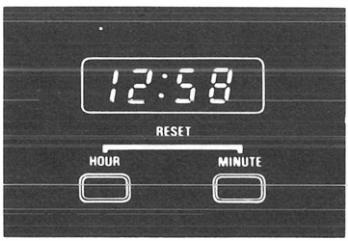
When the ignition switch is turned to "ON" the temperature gauge will indicate the temperature of the coolant.

Under most driving conditions the needle will remain around the centre of the gauge.

Stop/start driving, driving at sustained high speeds in warm weather, hill climbing or towing a trailer may cause the needle to move towards the "H". This is not dangerous. However, if the needle should move all the way to "H" position and remain there for more than a few minutes, pull out of the traffic as soon as it is safe to do so and stop the car. Leave the engine idling for a few minutes, ensuring that the electric fan is working. If the needle does not return to the normal position within this time, stop the engine and inspect the cooling system.

Refer to Section 3 of this handbook for instructions on what to do if your engine overheats.

CLOCK (SLE)



This clock is a quartz digital type with time display function only.

When the ignition key is turned to the "ACC" or "ON" position, the time will be displayed in coloured digits.

When the parking and/or headlights are turned on, the brightness of the digital display will be dimmed to reduce distraction whilst driving at night.

The time displayed can be adjusted by manipulating the two reset buttons in sequence. Pushing the hour button will advance the hour display and then pushing the minute button will advance the minute display.

When both buttons are pushed simultaneously, the digital display will show 01:00.

When the ignition key is turned to "OFF" the digital display will be turned off, but as long as the battery remains connected the clock will continue to function.

CLOCK (SLX)

This clock is a quartz analogue type. To alter the time, pull the reset knob on the lower right edge of the clock dial out and turn the hands to the time required.

WARNING AND INDICATOR LIGHTS

Brake Warning Lights

(PARKING BRAKE SYSTEM)

With the ignition switch in the "ON" position and the parking brake applied, the warning light should glow red. If it does not glow, check the electrical system for a burned out bulb or an open circuit.

(FOOT BRAKE SYSTEM)

When the ignition key is turned to "ON" the red warning light will glow. When the engine is started up and run at a fast idle, the warning light will go out.

If the light does not come on when the ignition switch is first turned on, check the electrical system for a burned out bulb or an open circuit.

If the light comes on when the brake pedal is depressed with the engine running, the foot brake system is partially inoperative because of a loss of pressure in one side of the dual circuits. **Have the brakes repaired immediately.** Do not drive the car unless it is safe to do so and then only at a reduced speed to the nearest garage/service station. (Also, refer to BRAKE SYSTEM described in Section 2.)

Charge (alternator) Warning Light

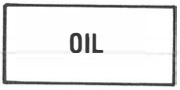
The red charge warning light will glow red when the ignition is turned on. After the engine has been started and the alternator is charging the battery, the light will go out and remain out.

If the light comes on at normal driving speeds and remains on, the alternator and electrical system should be checked.

The light may glow or flicker at idling speeds, but if it does go out when the engine speed is increased, the system is functioning normally.

NOTE: It may be noticed that when the engine is started up without touching the accelerator pedal, the brake and charge warning lights remain on. This is not unusual and is brought about by the alternator not reaching "Charging" speed. If there is no malfunction in the brake or charging system, the lights will go out and stay out when the engine is speeded up slightly.

Oil Pressure Warning Light



When the ignition key is turned to the "ON" position the oil pressure warning lamp will glow red. After the engine has been started, the light will go out.

If the oil pressure drops below a safe working pressure the light will come on. If the light glows steadily while driving, stop the engine and check the lubrication system to locate the cause of the trouble.

The light may flicker at idle or for a few seconds after a sudden stop. This is not harmful.

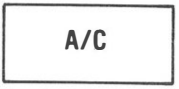
Low Fuel Warning Light (SLE)

The Low Fuel warning light will come on when the amount of fuel in the tank drops below 8 litres approximately.

Rear Defog Indicator Light

This yellow indicator light will come on whenever the rear defogger is turned on.

Air-Conditioning (where fitted)



The blue A/C indicator light will come on whenever the optional air-conditioner is switched on.

Turn Signal Indicator Light

Two indicator lights are installed in the centre panel surrounding the speedometer dial, one in the top left corner and the other in the top right corner. When the turn signal is operated, the light corresponding to the side selected will flash green to indicate that the signals are working.

High Beam Indicator Light

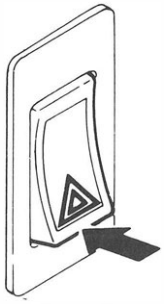
This light is situated on the top centre panel above the speedometer dial. When high beam is selected the warning light will glow blue.

OTHER CONTROLS AND SWITCHES

Hazard Warning Switch

When the hazard warning switch is pushed on, all direction indicator lights will flash simultaneously, warning traffic of the presence of a hazard.

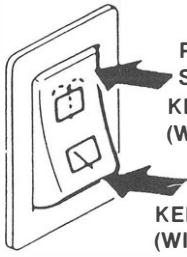
NOTE: It is an offence in some states to use the hazard function of indicator lights in any but emergency situations.



Rear Window Wiper and Washer Switch (where fitted)

Don't operate the washer continuously for more than thirty seconds or if the reservoir is empty and don't operate the wiper when the screen is dry.

NOTE: The rear screen washer (where fitted) uses the same reservoir as the front screen washer.



Instrument Panel Lights Dimmer

The instrument panel lights can be dimmed by turning the dimmer switch in an anti-clockwise direction.

Rear Window Electric Defroster Switch

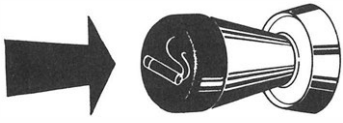
This switch is located on the lower left hand side of the instrument cluster lid. To heat the rear window glass push the bottom of the rocker type switch in.

NOTE: The ignition key must be in "ON" position.

When switched on, the yellow warning light adjacent to the switch will light up.

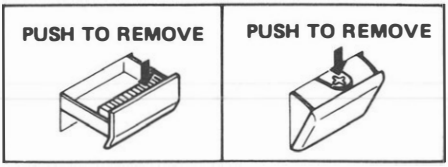
Cigarette Lighter

The cigarette lighter is located on the dash face just below the heater controls. To operate, push it in. When it becomes heated, the lighter will automatically partially eject, indicating that it is ready for use. After use, replace in the eject position in socket ready for next application.



Ash Trays

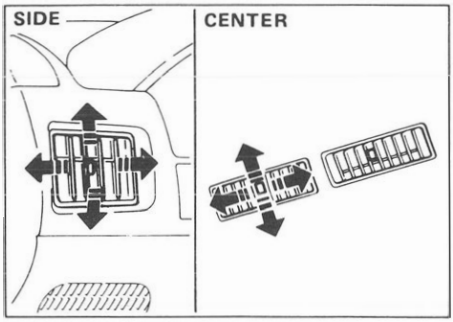
The ash trays are located in the dash face and the rear of the centre console.



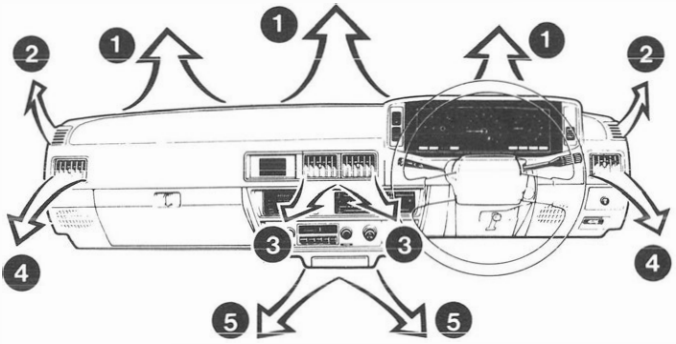
VENTILATION SYSTEM

Two side and two centre ventilators on the dash, in conjunction with the flow away outlets in the rear quarter panels and the rear doors, allows ventilation of the car interior without the need to open any windows. To draw fresh air into the car with the windows closed, move the 'AIR INTAKE' lever to the 'FRESH' position and, for maximum benefit, move the "FAN CONTROL" lever to the desired speed.

NOTE: Always ensure the air inlet grille (located in front of the windshield) is kept clear of leaves, snow, etc, otherwise the ventilation system will not function properly.



INTERIOR AIR OUTLETS



1. Screen
2. Side (fixed)
3. Centre (adjustable)
4. Side (adjustable)
5. Floor

HEATER AND AIR-CONDITIONER* CONTROLS

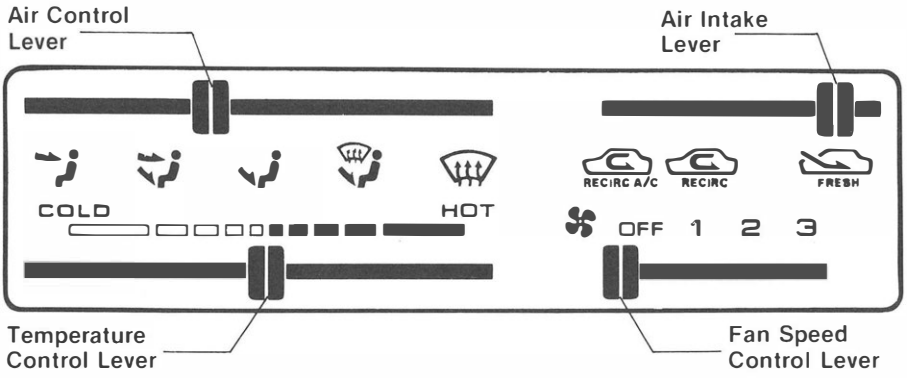
(*Denotes where fitted)

Air Control Lever: This lever is used to direct the air flow through the desired outlet.

Air Intake Lever: This lever is used to select air source — Inside or Outside.

Temperature Control Lever: This lever is used to control the temperature of the air being discharged.

Fan Control Lever: This lever controls the fan speed.



Heater Operation

Preferred climate setting	Control position				Air source	Air outlets
	Air control lever	Temperature control lever	Fan control lever	Air intake lever		
No heating	Any position	"COLD"	"OFF"	Any position	—	No air flow
Ventilation		"COLD" to "HOT"	1 to 3	FRESH	Outside	3 4
Bi-level						3 4 5
Heating						5
Defrosting and Heating				FRESH		1 2 5
Defrosting and Defogging				FRESH		1 2
Fast Heating		"HOT"	"3"	RECIRC	Inside	5
Fast Defrosting						1 2

OPERATING TIPS

- For adequate rear seat heating, keep the areas beneath the front seats clear, and operate the fan as required.
- Move the air intake lever to the "RECIRC" position when driving on dusty roads to prevent outside air from entering.

Air-Conditioner Operation (where fitted)

Preferred climate setting	Control position				Air source	Air outlets
	Air control lever	Temperature control lever	Fan control lever	Air intake lever		
✻ Cooling and Dehumidified heating		"COLD" to "HOT"	"1" to "3"	Recirc A/C	Inside	3 4
						3 4 5
						5
						1 2 5
✻ Dehumidified defogging						1 2
Ventilation Heating Defrosting and Defogging	Utilize the same procedure as for the HEATER					

To turn the air-conditioner on, move AIR INTAKE LEVER to "Recirc/ A/C" position and move FAN CONTROL LEVER to desired speed. When this is done, the "A/C" light on the instrument panel will glow blue.

NOTE: If the Air Intake Lever is moved off "RECIRC A/C" or the fan switched off the air-conditioner will cease to operate.

HEATING AND DEMISTING THE CAR

When the air-conditioner is switched off the heater operation is the same as a non-air-conditioned car.

During winter as well as summer, the air-conditioner can be used to demist or de-humidify the car interior.

Switch on the air-conditioner and set to the required temperature and fan speed with air control lever in one of the Defrosting positions. This will remove the excess moisture from the air and demist the car windows in a few minutes.

OPERATING TIPS

- If your vehicle interior is extremely hot, first drive the vehicle for two or three minutes with all windows open. Close the windows as soon as the hot air has been forced out of the vehicle.
- Keep windows closed while the air-conditioner is in operation.

- If the air-conditioner is used for an extended period of time you should allow fresh outside air to enter the vehicle occasionally by moving the air intake lever to 'FRESH'.
- IN WINTER — it is advisable to operate the air-conditioner compressor for about ten minutes at least once a week. This procedure is necessary to help prevent a possible failure of the system due to drying out of compressor seals.
- CONDENSER — when washing the car, ensure that the condenser and radiator air passages are cleaned, particularly of dead insects. Do not cover condenser with a screen wire guard as it restricts the air flow.

Air-Conditioner Maintenance

Before the start of summer when you begin to use the air-conditioner regularly, the following points should be checked by an authorised dealer.

1. Check the engine radiator and thoroughly flush it if necessary.
2. Check all water hoses for leaks, cracks, distortion, etc. and replace when necessary.
3. Pressure test the cooling system and radiator cap.
4. Re-tension the compressor and fan belts.
5. Clean the condenser and radiator air passages of insects and leaves.
6. Re-tighten the compressor and bolts securing mounting brackets and check the idler pulley if fitted.
7. Leak test the air-conditioning system and top up with refrigerant if necessary.

REFRIGERANT LEVEL

The air-conditioning system is charged with freon 12 gas. The correct amount in the system may be checked in the sight glass on top of the receiver drier tank mounted in the engine compartment. When the air-conditioner is first switched on bubbles will be visible in the sight glass for a short period.

With the engine running at approximately 1,200 rpm, the bubbles should disappear after approximately one minute. If bubbles are still visible after this time, the air-conditioning system should be re-charged with refrigerant gas.

COMPRESSOR BELT ADJUSTMENT

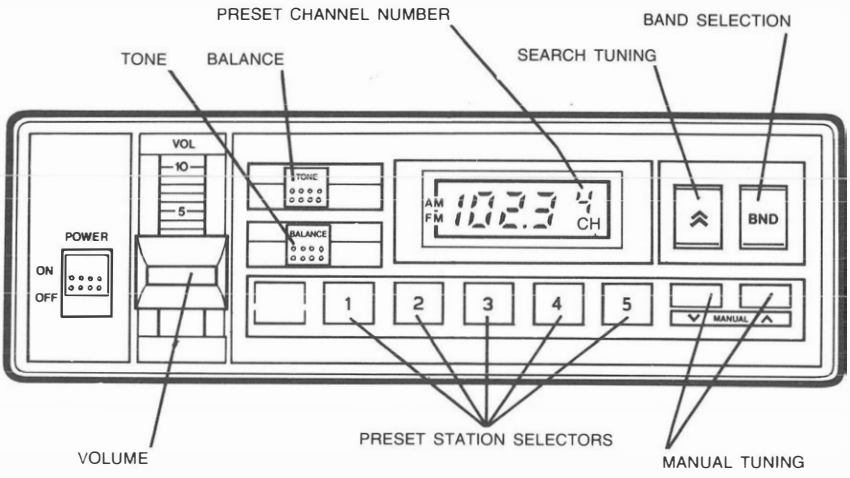
The belt that drives the air-conditioning compressor should be checked for wear and tension. It must be borne in mind that over-tensioning of the belt is just as injurious as under-tensioning for proper functioning of the system.

Belt tensions and tensioning method are given in the Service Manual.

CONDENSER CLEANLINESS

The condenser is located alongside the radiator. Due to its sturdy construction the condenser requires very little in the way of maintenance. However, dirt and insect accumulation in the fins and tubes of the condenser will cause a sharp decrease in its effeciency and therefore affect the operation of the system.

AM/FM DIGITAL STEREO RADIO



To turn the radio on, slide the Power Switch upwards to the 'ON' position. The radio frequency being received will be shown in the centre of the digital display. The radio band can be changed between AM and FM by pressing the band selection button. The band being received will be indicated by the AM or FM indicator on the left hand side of the display.

TONE CONTROL

Moving the Tone slide Control to the right increases treble, moving it to the left increases bass.

BALANCE CONTROL

The relative volumes of the two speakers can be varied by the balance control. Moving the slide control to the left makes the left hand speaker louder (and vice versa).

MANUAL TUNING CONTROL

Depressing the UP or DOWN manual tuning button allows the frequency to be increased or decreased as required until the frequency of the desired station is displayed. AM frequency changes in steps of 9 kHz, FM in steps of 0.1 MHz.

SEARCH TUNING

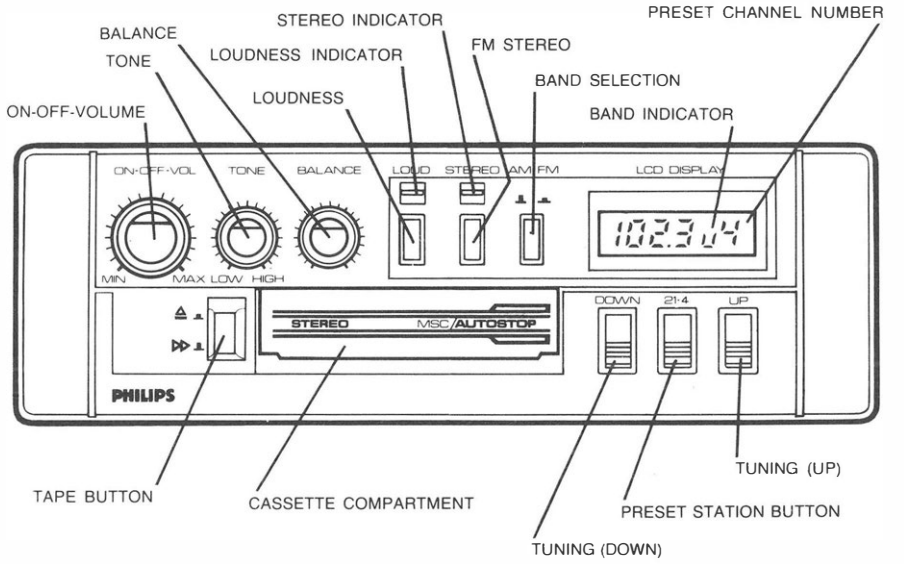
Depressing the search tuning button causes the frequency to increase until the next transmitting station is located. If the highest frequency in the range is reached, searching resumes again at the lowest frequency.

PRESET STATION SELECTION

One AM and one FM station can be preset on each of the five preset channels.

When a station is selected by pressing one of the preset buttons, the channel number will be shown at the right hand end of the display. To alter the preset frequency, then depress and hold the preset button you wish to alter. The radio will mute initially and after approximately three seconds the sound will return and the display will begin flashing to indicate storing has occurred. The button can then be released. Preset stations will be erased if the battery is disconnected.

AM/FM DIGITAL STEREO RADIO CASSETTE



RADIO OPERATION

To switch on, turn ON-OFF/VOLUME knob clockwise. The display will show the frequency band indication ('U' for FM, 'M' for AM) and (possibly) a preset number.

Frequency band can be changed between AM and FM by pushing the band selection button.

TONE CONTROL

Turning the tone knob clockwise increases treble, anticlockwise increases bass.

BALANCE CONTROL

The relative volumes of front and rear speakers can be varied by turning the balance control knob. Clockwise increases front volume, anticlockwise increases rear volume.

MANUAL AND SEARCH TUNING

The tuning buttons (UP and DOWN) have three functions depending on how long they are pressed.

1. If either button is pressed for less than 0.5 seconds the frequency will change by a single step (90 kHz for AM, 0.05 MHz for FM).
2. If either button is pressed for more than 0.5 seconds, the radio volume will mute. If the button is then released the radio will search for the next transmitting station.
3. If either button is pressed for more than 2 seconds a double tone beep will sound and the radio will begin fast scanning until the button is released. If either end of the frequency range is reached, scanning continues from the other end.

PRESET STATION SELECTION

One AM and one FM station can be preset in each of four locations controlled by the preset button. Pressing and immediately releasing the preset button will select the next preset station. Its number will be displayed to the right of the frequency band indicator.

To alter the preset station, tune the radio to the desired frequency then depress the preset button for more than 2 seconds. The display will show '-S-' and a double tone beep will sound when storing has occurred. Preset stations will be erased if the battery is disconnected.

STEREO/MONO FUNCTION

When a stereo FM signal is being received, the green indicator light will illuminate.

If the reception of an FM station is poor due to a weak signal or interference, mono mode may be selected by lightly pressing and releasing the stereo button. The stereo indicator light will not illuminate when mono mode is selected.

LOUDNESS

At low sound levels the human ear is less sensitive to bass. If the volume control is set low the loudness button can be pressed to increase bass amplification. The loudness indicator will illuminate when this function is utilised.

CASSETTE OPERATION

Holding the cassette with the open side to the right and the full reel toward the rear of the car, insert it into the cassette compartment until the tape button springs out. The cassette will play through to the end, at which point the unit will automatically switch back to radio reception.

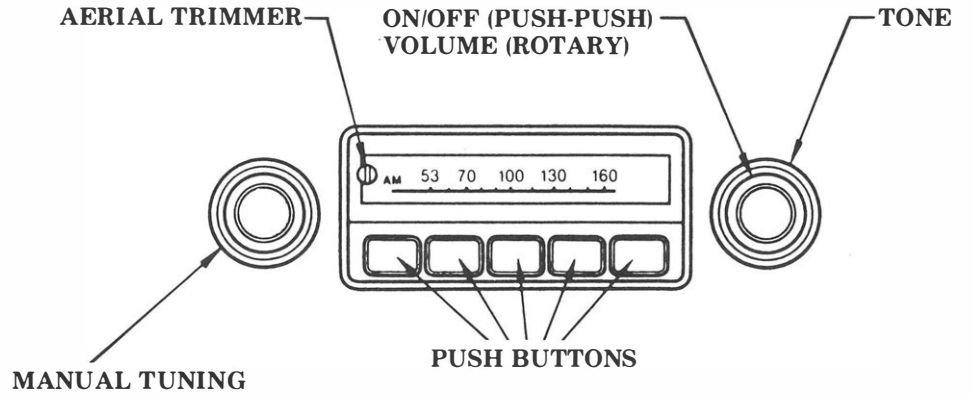
Fast forward can be achieved by pressing the tape button halfway in until it locks. To stop fast winding, press tape button lightly and release.

To stop play back, press the tape button fully home. The cassette will partially eject and the unit will revert to radio reception.

OPERATING PRECAUTIONS — CASSETTE PLAYER

1. Correct tape slack before inserting. A loose tape sometimes causes malfunction (such as too fast tape travel or accidental reversing of the tape).
2. Do not use C-120 tapes, which are too thin and may stretch or break off.
3. Clean the head regularly with a head cleaner (sold separately).
4. Do not bring screw drivers and other metals close to the head; this could damage head.
5. Keep cassettes out of direct sunlight and dust. They are sensitive to high temperatures, humidity and dust. Magnets can also erase the tape recording, so keep cassette away from them.
6. Remove the cassette from the player when not in use.

AM RADIO



ON/OFF Switch and Volume Control

Ignition switch must be in "ACC" or "ON" position.

PUSH the VOLUME control to switch the receiver ON; a second push will switch the receiver OFF. TURN the control to increase or decrease VOLUME.

Manual Tuning Control

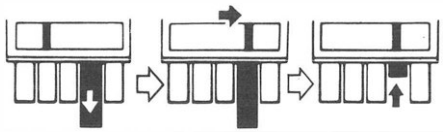
The receiver may be tuned at any time by means of the MANUAL TUNING control, this will not affect the ability of the push-buttons to recall preselected stations.

Pushbuttons

The pushbuttons enable you to tune the receiver to any of five preselected stations without the need to operate the MANUAL TUNING control.

Resetting Buttons

You may alter the station to which any particular pushbutton is preset simply by resetting that pushbutton (see sketch), you may reset any or all of the pushbuttons in this way as often as you like.



Antenna Trimmer Adjustment

To achieve best performance from the radio, the antenna trimmer requires adjustment. See diagram for its location.

Fully extended antenna. Tune radio to a weak station broadcasting at about 1,400 kHz (140 on dial). Using a small screwdriver gently turn screw clockwise or anti-clockwise for maximum volume.

Although you may reset the pushbuttons in any order, it may be convenient to work along the pushbuttons from left to right, preselecting your preferred five stations, from left to right across the dial.

Alternatively, you may reset the pushbuttons in order of your station preference so that your favourite station is selected by the first pushbutton, your next preference by the second pushbutton, and so on. To reset the pushbuttons to the required stations proceed as follows:

1. Switch the receiver ON.
2. Set the VOLUME control to a higher than normal position.
3. Unlock the pushbuttons (or pushbutton) by pulling firmly outwards.
4. Accurately tune the receiver to the required station with the MANUAL TUNING control.
   NOTE: Subsequent pushbutton tuning can only be as accurate as your initial setting up.
5. Lock pushbutton to the station by pushing in firmly.
6. Repeat steps 4 and 5 for each remaining station and pushbutton.

Tone Control

Set the control to give the tone you find most satisfactory. When listening to speech, it may be found beneficial to increase the treble (turn control clockwise). Outside interference will be reduced by turning the control anti-clockwise.

SECTION 2 STARTING, DRIVING AND TRAILER TOWING

EXHAUST GAS WARNING

(Carbon Monoxide Poisoning)

Exhaust gases contain carbon monoxide, a dangerous gas, which can cause unconsciousness and even death to both humans and animals.

You could inhale the gases if the exhaust system on your vehicle is faulty.

To protect against exhaust gas entry into the enterior of the vehicle we recommend that the exhaust system and body be thoroughly inspected:

— each time the vehicle is serviced;
— whenever a change is noticed in the sound of the exhaust system or
— whenever the exhaust system, underbody or rear of the vehicle is damaged.

Take the vehicle to your GMH dealer if you think your vehicle needs inspecting for any of the above reasons.

DO NOT SIT IN A PARKED VEHICLE FOR ANY EXTENDED PERIOD OF TIME WITH THE ENGINE RUNNING AND DON'T LEAVE THE CHILDREN OR YOUR PETS IN THE VEHICLE EITHER.

DO NOT RUN THE ENGINE IN AN ENCLOSED AREA SUCH AS THE GARAGE, ANY LONGER THAN IS NEEDED TO MOVE THE VEHICLE.

Driving with the rear hatch open is not recommended. If you must travel with the rear hatch open, close all windows, fully open the ventilation system, turn ventilation fan control to maximum setting and do not exceed 50 km/h unless necessary.

RUNNING IN SCHEDULE

All new cars require careful driving during the running-in period. Pistons, piston rings and bearings must have time to seat properly and produce smooth long-wearing surfaces. Too much strain on a new engine impedes this gradual "bedding-in" process and is likely to shorten engine life and increase oil and fuel consumption.

During the first 1,600 km do not drive at full throttle, except for brief periods, and do not exceed the upper speed limit. Do not allow the engine to labour before changing to a lower gear when climbing a hill. Variable speeds are best during the running-in period. Always drive so that the engine runs fast enough to prevent strain. After completing the first 1,000 km the car should be taken to your authorised GMH dealer for the scheduled 1,000 km service.

Fuel economy will vary during the running-in period and is dependent on driving habits and proper maintenance.

Therefore, to conserve fuel and assist in proper run-in,

- Don't drive at high speeds till the engine has warmed up.
- Avoid fast starts.
- Don't allow the engine to labour in any gear.
- Avoid driving at wide throttle openings during the running-in period.
- Don't race the engine.
- Avoid extended idling periods.
- Except in an emergency, avoid heavy braking or rough usage of the brakes. This will allow the brake shoes/pads to bed in properly.

Safety Checklist

Following these simple steps before driving your new vehicle will help make your motoring safer:

BEFORE ENTERING THE CAR

1. Check that windows, mirrors and lights are clean.
2. Check tyre inflation.
3. If you intend to reverse, check that the area behind you is clear.

BEFORE DRIVING OFF

1. Be sure that all doors are secured.
2. Position your seat for comfortable driving.
3. Adjust all rear vision mirrors.
4. FASTEN SEAT BELTS.
5. Check that the warning indicators light up when you turn the key to start the engine. (Refer this section for correct Starting Procedure.)
6. Check all gauges (including the fuel gauge).

STARTING THE ENGINE

Before Starting the Engine

- Make sure the parking brake is applied.
- Place the gearshift lever in **"Neutral"** (in **"N"** or **"P"** position for the automatic transaxle). Depress the clutch pedal to reduce drag from the transaxle gears.

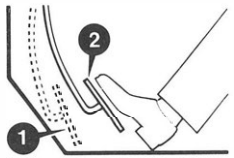
Tips on Starting

- After starting the engine, release the ignition key.
- **Do not run the starter motor continuously for more than 10 seconds.** Wait at least 10 seconds before running it again.

COLD ENGINE

1. Depress the accelerator pedal to the floor and release it slowly. **During extremely cold weather, fully depress and release the pedal two or three times.**
2. Crank the engine without touching the accelerator pedal. If the engine starts, but fails to run, repeat the above procedure.
3. **Tap the accelerator pedal to reduce the engine speed.** The engine can then be warmed up at normal speed.

COLD ENGINE

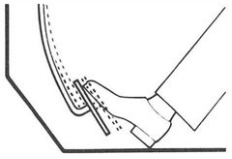


DEPRESS 1 AND RELEASE 2

WARM ENGINE

1. Hold the accelerator pedal about ¼ to ½ of its travel to the floor. Do not pump the pedal.
2. Crank the engine.

WARM ENGINE

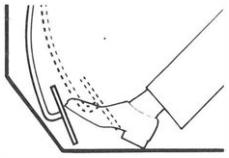


DEPRESS ¼ TO ½ DOWN

FLOODED ENGINE

1. Slowly depress the accelerator pedal to the floor.
2. Keeping the pedal depressed, crank the engine. Repeat cranking until the engine is clear of excess fuel. **Do not pump the pedal.**

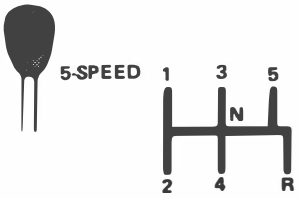
FLOODED ENGINE



DEPRESS FULLY

DRIVING MANUAL TRANSAXLE

The manual transaxle has 5 fully synchronised forward gears and a non-synchronised reverse gear. Fourth and fifth gears are both overdrive gears.



RECOMMENDED SHIFT-UP SPEEDS

Gear change	Speed km/h
1-2	25
2-3	45
3-4	65
4-5	75

NOTES:

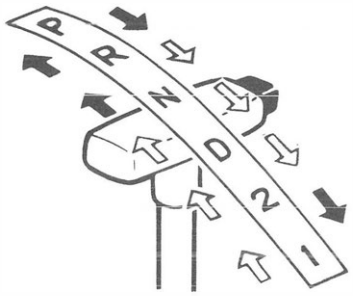
1. When shifting from one gear to another, be sure to depress the clutch pedal all the way to the floor to avoid clashing and possibly chipping the transmission gears.
2. Shift into reverse only when the car has completely stopped.
3. Do not drive with your foot resting on the clutch pedal as damage to the clutch may result.
4. Never slip the clutch by releasing the pedal just enough to hold the car on a hill.
5. When climbing steep grades, change down to lower gear before the engine starts to labour. To maintain safe speeds on a steep downgrade and to reduce brake wear and overheating, shift into a lower gear before starting the descent.
6. When quick acceleration is required, shift to a lower gear and accelerate until the car reaches recommended shift-up speed in each gear. Do not exceed the speed limit of any gear.
7. In normal acceleration it is more economical to change to a higher gear as soon as possible without causing engine lugging or pinging.

DRIVING WITH AUTOMATIC TRANSAXLE

Gear Shift

Push the button located on the end of the selector lever when engaging "R" and "P" and when shifting from "2" to "1" as indicated by the arrow. ➡

The lever can be shifted freely into any of the positions indicated by the arrow. ⇨



NOTES:

- The engine can only be started with the gear lever in the "N" or "P" position.
- Always apply the parking brake before starting the engine.
- Keep the engine at idling speed when shifting from "N" to any driving position.
- Do not increase engine speed to hold the car on an incline.

HOW TO OPERATE THE SELECTOR LEVER

"P" Parking	After parking the car, apply the parking brake and set the selector lever in the "P" position. This position locks the transmission and front wheels. **WARNING: Do not shift into "P" until the car has stopped completely.**
"R" Reverse	Shift into the "R" position only after the car has stopped completely.
"N" Neutral	In the "N" position, no gear is engaged.
"D" Drive	This position is used for forward driving under normal conditions. With the selector lever in this position, the transaxle will be automatically shifted between 1st, 2nd and 3rd gears, from starting from a complete stop to high speeds, in response to the depression of the accelerator pedal. When the vehicle is slowing down, the transaxle will automatically down-shift.
"2" Second gear	Use the "2" position while climbing hills or for effective engine braking on downhill grades. When the lever is set at this position, the transaxle will be automatically shifted between 1st and 2nd gears in response to the depression of the accelerator pedal. However, the transaxle is not shifted to 3rd gear. When the vehicle is slowing down, the transaxle will automatically down-shift. **Do not down-shift into the "2" position at speeds over 110 km/h. Do not exceed 110 km/h in the "2" position.**
"1" First gear	The "1" low gear is helpful for driving up very steep hills and for braking the vehicle on downhill roads. When down-shifting into the "1" position, move the selector lever from "D" to "2" and then to "1". **Do not shift into the "1" position at speeds over 65 km/h. Do not exceed 65 km/h in the "1" position.**
Accelerator down-shift — In "D" position	You can get extra power and acceleration for rapid passing or hill climbing by completely depressing the accelerator to down-shift the gears. The accelerator down-shift makes the transaxle down-shift into second gear when driving below 100 km/h and into first gear when driving below 45 km/h.

BRAKE SYSTEM

Your vehicle is fitted with a vacuum power assisted brake system utilizing disc-type front brakes and drum type rear brakes. To ensure the safety of yourself and others it is essential that your vehicles brake system receive regular maintenance as detailed in the Maintenance Schedule in Section 6B of this handbook.

Split Circuit Brake System

The foot brake system is designed with a dual diagonal circuit. One circuit operates the right rear and left front brakes and the other circuit the left rear and right front brakes.

Hydraulic pressure is provided from a tandem design master cylinder which isolates the two systems. This means there are two completely separate hydraulic circuits each supplying pressure to half of the braking system. In the event of a failure in one circuit, the other circuit will be fully operational to stop the vehicle, although with increased pedal effort.

In association with the extra pedal effort the pedal would also travel further towards the floor.

Brake Warning Lights

The foot brake and parking brake warning lights are covered in the "Instrument Panel" section, Section 1E.

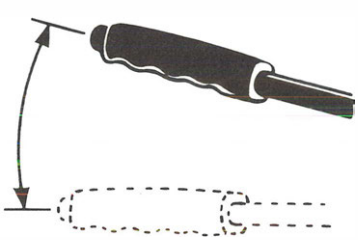
Power Brakes

- If power assist is lost because of a stalled engine or other reasons, the brakes can normally still be applied with power assist at least two times using reserve power.
- The system is designed to bring the car to a full stop on reserve power if the brake pedal is applied once and held down. However, the reserve power is partly used up each time the brake pedal is applied and released. Apply smooth and even pressure to the pedal. Do not pump the brakes when brake power assist has been lost, except when needed to maintain steering control.
- Without power assist, the car can still be stopped by pushing much harder on the brake pedal. However, the stopping distance may be longer, even though the brakes themselves remain fully operational.

Parking Brake

The parking brake lever is mounted on the floor between the passenger's and the driver's seats.

- To Apply. Pull the lever straight up using the grip at the end of the lever. Do not press the release button.
- To Release. Pull the parking brake lever upwards while simultaneously pressing in the release button at the end of the lever with the thumb. After the ratchet system disengages, retain pressure on the button while lowering the lever.
- To help remind you, the park brake warning light is designed to stay on if the parking brake is not fully released and the ignition key is on.
- Never drive the car with the parking brake on as this may overheat the rear brakes, reducing their effectiveness and causing excessive wear or damage.



Brake Adjustment

- The brakes on this vehicle are self-adjusting. They have been designed so that periodic brake adjustment is not required.
- The drum brakes adjust themselves each time the parking brake is applied.
- The disc brakes adjust themselves each time the brakes are used.
- If the brake pedal suddenly goes down further than normal, you should immediately see a GMH dealer for investigation of the problem.
- Also see your dealer if the parking brake is out of adjustment.

NOTE: "Riding the brake" by resting your foot on the brake pedal when you do not intend to brake can cause overheated brakes. This can wear out the brake linings and pads faster and damage the brakes and waste fuel.

Wet Brakes

CAUTION: Driving through water deep enough to wet brake components may reduce braking effectiveness. As a result, the car will not slow down at the usual rate, and it may pull to the right or left. After checking to the rear for other vehicles, apply the brakes lightly to check whether this has happened. To dry them quickly, lightly apply the brakes. At the same time keep a safe forward speed, with plenty of clear space ahead, to the rear, and to the sides. Do this until the brakes return to normal. Always do this after driving through water to help reduce the possibility of personal injury.

TIPS ON DRIVING

Economical Driving

Attention to the following points will assist you to attain the operational economy built into your car.

1. Do not pump the accelerator — gently depress it until the desired speed has been reached, and then try to maintain that speed.
2. Always drive the car in the gear most suited to the driving conditions.
3. Maintain moderate speeds on the highway. Speeds above 80 km/h will considerably increase fuel consumption.
4. Maintain a safe distance behind other vehicles and avoid sudden stops. This will reduce wear on brake linings and/or pads and use less fuel as extra fuel is required to accelerate back to driving speed.
5. Excessive engine idling increases fuel consumption. If you are held up in traffic and are faced with a wait of more than a few minutes, switch off to conserve fuel and start up again later.
6. Keep the tyres at the recommended inflation pressures for longer tyre life and fuel economy.

7. Keep the engine properly tuned up and follow the recommended periodic maintenance schedule. This will maintain serviceability and lower operating costs.
8. Check your tyres regularly for abnormal wear. Out of alignment wheels cause the tyres to drag resulting in premature tyre wear and additional fuel consumption.
9. If fitted with air-conditioning, use only when necessary.

In Cold Weather

STARTING OFF ON SLIPPERY ROADS

When rain or snow makes the roads slippery, use caution in acceleration and clutch engagement. If the clutch is engaged too abruptly and with too high an engine speed, the wheels will spin and the car may not move forward. To counteract this, use reverse and forward gears alternately to cause the car to roll back and forth. This will generally get you away from the slippery patch.

DRIVING ON SLIPPERY ROADS

When driving on wet or slippery roads, never brake hard. Instead, smoothly shift to a lower gear and use the braking effect of the engine.

When driving on icy roads, always proceed slowly and cautiously, turn the steering wheel gently and use the brakes only lightly. Moreover, always change gears smoothly, and never drive with the clutch pedal depressed.

If the car should go into a skid, do not apply the brakes. Release the accelerator and turn into the direction of the skid. As the car recovers from the skid, straighten out the wheels and accelerate lightly.

SPECIAL WINTER EQUIPMENT

It is recommended that the following items be carried in the car during winter in areas subject to snowfalls and freezing temperatures.

1. A scraper and stiff bristled brush to remove ice and snow from the windows.
2. A sturdy, flat board to be placed under the jack to give it support.
3. A shovel to dig the vehicle out of snowdrifts or bogs.
4. Snow chains.
5. Add Antifreeze to the engine coolant. Refer to Section 6A for details.
6. Ensure that the engine and transaxle oils have a suitable SAE viscosity rating. Refer to Section 6A for details.

TOWING A TRAILER

NOTE: Your vehicle warranty may be voided if the following loads are exceeded, or a non-genuine towbar is fitted.

Towing a trailer will not only place extra stress on your car but will also affect its steering ability, durability and economy. If the need to tow a trailer arises, consult your GMH dealer for an explanation of proper use of towing equipment.

Maximum Load Limits

Maximum gross vehicle mass of a trailer (including tyres and other loaded equipment).

1. Never exceed the value specified in the following chart:

Trailer with brakes	Trailer without brakes
700 kg	550 kg

2. Even if the specified value is not exceeded, it must not be greater than the smallest value of the following three.
   (i) Towing capacity displayed on a towbar.
   (ii) Trailer's gross vehicle mass marked on a coupling body.
   (iii) Gross vehicle mass marked on a trailer data plate.

Maximum Towbar Ball Load

Never load the towbar ball to more than 10% of the loaded trailer mass, or the value specified in the table.

Trailer with brakes	Trailer without brakes
70 kg	55 kg

Maximum Permissible Rear Axle Load

Never exceed the gross axle weight rating rear (GAWR) for your vehicle.

Unit: kg

GAWR	765

The load imposed on the towbar ball must be included in the maximum rear axle loading unless a load equalising hitch is used which fully compensates for towbar load by restoring the towbar tongue height to the unhitched position.

Tyre Pressure

Ensure that tyres are inflated to the maximum recommended pressure (refer Tyre Placard located in glove box).

Safety Chain

The safety chain is designed to prevent accidents should the connection between car and trailer fail while towing. Be sure the chain is slack enough to permit turning corners and, if possible, tight enough to prevent the towing coupling from dropping on the ground.

Trailer Brakes and Lighting

Ensure that trailer conforms to state regulations regarding brakes and lighting. Ensure that lighting harness is long enough to allow for turns.

Operating Tips

- Avoid towing a trailer during the running-in period.
- Avoid abrupt starts, accelerations and stops.
- Always drive at a moderate speed and within state speed limits.
- Have your car serviced more often than that specified in the recommended Maintenance Schedule.

NOTE: Because of the increase in weight and the extra power required, trailer towing will increase fuel consumption.

CAUTIONS:

1. **Never "tap" into the vehicle's hydraulic braking system to facilitate trailer braking.**
2. **The brakes on the trailer or caravan must be designed to cope with the braking requirements of that trailer or caravan under all towing conditions without adversely affecting the brakes on the towing vehicle.**
3. **Whenever a towbar is removed be certain to have any mounting holes in the underbody properly sealed to prevent the possible entry of exhaust fumes, dust and water.**

SECTION 3 IN CASE OF EMERGENCY

HAZARD WARNING FLASHER

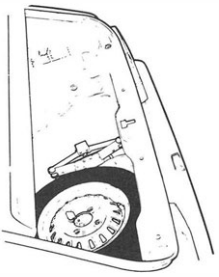
Use the hazard warning flasher to warn other road users that your car is disabled or parked under emergency conditions. Pull off the roadway if possible.

Turn on the hazard warning flasher by pressing the switch located on the right hand side of the instrument cluster.

The flasher will work with the ignition either off or on.

SPARE WHEEL, TYRE AND JACK STORAGE

The spare wheel, jack, handle and wheel brace are located in a well in the floor of the luggage compartment under the carpet.

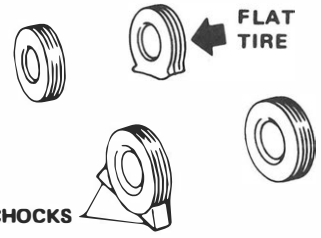


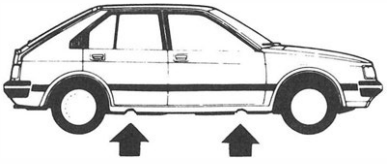
CHANGING WHEELS

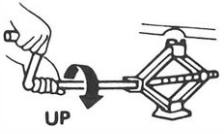
(Flat tyre)

Move the vehicle off the road where possible.

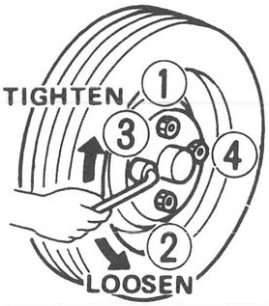
1. Park on a level surface and set the parking brake. Put the manual transaxle in reverse (Automatic transaxle in P).
2. Switch on hazard flasher.
3. Chock the wheel diagonally opposite the flat tyre.
4. Place the jack directly under the jack up point.
5. Twist off centre cap or prise off wheel cover. Slacken the wheel nuts one or two turns each. DO NOT LOOSEN ANY FURTHER TILL WHEEL IS CLEAR OF GROUND.
6. Raise vehicle until wheel is clear of ground, remove nuts and change wheels.
7. Tighten the wheel nuts alternately and evenly. Ensure that nuts are fitted with bevelled end against the wheel.







8. Lower the vehicle until the wheel rests firmly on the ground. Fully tighten wheel nuts with wrench, install wheel covers or centre caps and remove the chocks and jack.



Wheel Nut Torque

CAUTION: As soon as possible after changing a wheel, you should have the wheel nuts tightened with a torque wrench to the specifications shown in 'Specifications' Section 7 of this Manual.

Wheel nuts should be tightened evenly to the correct torque in the numerical sequence shown.

Improperly tightened wheel nuts could eventually allow the wheel to come off while the car is moving, possibly causing loss of control, and/or personal injury or damage.

Wheel Cover Removal & Replacement

TO REMOVE

Push the blade end of the wheel nut wrench between the wheel cover and the wheel and force it in for about half the length of the blade.

Moving round the wheel, lightly pry the cover off at several points by twisting the wrench away from the tyre.

TO REPLACE

Position the cover so that the valve hole in the cover is directly over the valve. While pressing the cover firmly against the wheel at the lowest position, knock the cover onto the wheel with several light blows using the palm of the hand. Repeat this operation at several positions around the edge of the cover until a secure installation is obtained.

NOTE: It may be necessary to protect the hand during this operation.

EMERGENCY STARTING

Starting with Auxiliary (Booster) Battery

If your vehicle will not start due to a discharged battery, it can often be started by using energy from another battery — a procedure called "jump starting". This procedure is for use ONLY under the conditions listed below.

Departures from these conditions and procedures could result in: (1) serious personal injury (particularly to eyes) or property damage from such things as battery explosion,

battery acid or electrical burns, or (2) damage to electronic components in either vehicle. If all the conditions cannot be met, or if you are uncertain about them, we strongly recommend for your safety and that of your vehicle that you leave the starting to a competent mechanic.

CONDITIONS

The battery in the other vehicle (booster battery) must be of the same nominal voltage, 12 volts and must be negatively grounded. The nominal voltage and grounding of the other vehicle's battery may be determined by checking the specifications in its owner's manual. Use of a booster battery of a higher nominal voltage, or which is positively grounded may result in serious injury or property damage.

Also, never use a quick charger to start your engine.

CAUTION: Batteries produce explosive gases, contain corrosive acids and supply levels of electrical current high enough to cause burns. Therefore, to lessen the chance of personal injury when working near a battery:

- **Do not expose the battery to open flames or sparks. Battery action generates hydrogen gas which is flammable and explosive.**
- **Do not smoke near a battery.**
- **Wear eye protection such as industrial safety glasses and avoid leaning over the battery whenever possible.**
- **Do not allow battery acid to contact eyes or skin. Flush any contacted area with water immediately. In case of eye contact you should get medical help. Battery acid will also damage paintwork and fabrics if not washed off immediately.**
- **Be sure any batteries that have filler caps are properly filled with fluid.**
- **Remove rings, metal watch bands and other metal jewellery before working around a battery.**
- **Carefully follow each step in the jump starting procedure.**

JUMP STARTING PROCEDURE

1. Position the two vehicles so that they are **not** touching and apply the parking brakes. Automatic transmissions are to be placed in 'PARK' and manual transmissions placed into 'NEUTRAL'. Turn off ignition and all lights and accessories in both vehicles except the hazard flasher or any lights needed for the work area.
2. Attach one end of the first jumper cable to the positive terminal of the **booster battery** (identified by a red colour, + or P on the battery case, post or clamp) and the other end of the same cable to the positive terminal of the **discharged battery.**
3. Attach one end of the second jumper cable to the negative terminal (black colour, — or N) of the **booster battery,** and the other end to a good earth in the vehicle with the discharged battery **(do not connect directly to negative post of discharged battery).**

When making all connections take care that the clamps from one cable do not inadvertently touch the clamps on the other cable. Also ensure that jumper cables are not on or near pulleys, fans or other points that will move when the engine is started.

4. Start the engine in the vehicle which has the good battery and run the engine at a moderate speed. Then start the engine in the vehicle that has the discharged battery.
5. When the engine starts, leave it running then remove the jumper cables by reversing the above installation sequence exactly. While removing each clamp, take care that it does not touch any other metal while the other end remains attached.

Push Starting

CAUTION: Do not attempt to 'push start' or 'tow start' your Astra. These vehicles are fitted with a catalytic converter and if unburnt fuel were to reach the catalytic converter and ignite, the converter could ignite or be destroyed by backfire.

FREEING IMMOBILIZED CAR

In the case where the drive wheels have lost traction in sand, mud, snow, ice, etc. it may become necessary to "rock" the car backwards and forwards to free it.

To do this, engage first and reverse gear in quick succession, while simultaneously depressing the accelerator gently each time the clutch is engaged. (On automatic transmission models, move the shift lever from 'D' to 'R' position).

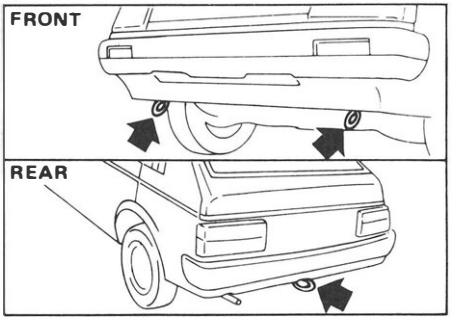
If the car is not freed by this procedure, anti skid materials should be placed under the spinning wheels or the car should be towed out.

Under conditions where one driving wheel is spinning and the other one is stationary AVOID OVER-REVVING THE ENGINE. Over-revving the engine under this condition could cause tyre and/or differential damage because the spinning wheel rotates at twice the normal driving speed.

TOWING THE CAR

If it becomes necessary to tow the car, connect a rope to the towing hook as illustrated. Before towing, release the parking brake and place the transmission in neutral ('N' for automatic transmission).

NOTE: Before towing, ensure that the transaxle on the vehicle to be towed is not locked up or in any way prevented from turning freely.



The towing hook should be used only for towing over short distances. When towing observe the following:

(a) Tow rope should not be connected to any point other than those described in this section.

(b) Do not take up slack in the rope too quickly.

(c) Always pull the rope in a straight direction with respect to the hook. Do not apply a sideways force to the hook.

RESTRICTED TOWING SPEED AND DISTANCE — Towing on four wheels in Forward or rearward direction

Speed km/h	Manual transaxle	Below 80
	Automatic transaxle	Below 30
Distance km	Manual transaxle	Less than 80
	Automatic transaxle	Less than 30

(d) Always observe Local or State regulations with regard to towing. Some States specify minimum length of tow rope, warning signs, licensing of towed vehicle driver, etc.

(e) When towing vehicle on all four wheels observe the restricted towing speeds and distances specified in the table.

Towing with Rear Wheels Raised

MANUAL TRANSAXLE:

With the gearshift lever set in the **"Neutral"** position and the ignition switch in the **"OFF"** position, secure the steering wheel in a straight-ahead position with a rope or other similar device. **Do not lock steering by removing key from lock** as this will result in damage to the lock mechanism. If the steering wheel cannot be fixed securely, a dolly must be used.

AUTOMATIC TRANSAXLE:

Never tow a vehicle with an automatic transaxle with the rear wheels raised (with the front wheels on ground) as this may cause serious damage to your vehicle. If necessary, always use the towing dolly under the front wheels.

ENGINE OVERHEATING

CAUTION: If the engine should overheat, as indicated by the Temperature Gauge reading or if you have any other reason to suspect there is a serious overheat condition immediate action is required as outlined in the following section. Continued operation of the engine EVEN FOR A SHORT TIME could result in a fire and the possibility of personal injury and/or severe vehicle damage.

If the coolant temperature gauge needle should move all the way to "H" position and remain there for more than a few minutes, pull out of the traffic as soon as it is safe to do so and stop the car. Leave the engine idling for a few minutes, ensuring that the electric fan is working. If the needle does not return to the normal position within this time, stop the engine and inspect the cooling system.

Do not open the engine hood if you can see or hear steam or coolant escaping from the engine compartment. Wait until no steam or coolant can be seen or heard before opening the hood.

Look for leaks at the radiator hoses and connections, heater hoses and connections, radiator and water pump.

Take care when checking all these components as they will probably still be hot.

If you find major leaks or spot other problems that may have caused the engine to overheat, do not run the engine until these problems have been corrected.

If you do not find a leak or other problem then you should check the level of coolant in the radiator.

CAUTION: Do not remove the radiator cap if the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure which is likely to cause serious personal injury.

When the engine has cooled sufficiently, remove the radiator cap as follows:

Cover the radiator cap with a thick cloth, depress and turn it slowly anti-clockwise half a turn to relieve pressure.

Wait until any remaining pressure (indicated by a hissing sound) is relieved, then press down on the cap and continue turning it anti-clockwise until it can be removed.

If when the cap is removed and the radiator top tank is found to be empty; if the engine is still hot, do not add water till the engine has cooled down. When the radiator and recovery reservoir have been topped up, start the engine and while warming up, check for leaks.

Once the Temperature Gauge no longer signals an overheat condition you can resume driving at a reduced speed. Return to normal driving after ten minutes if the Temperature Gauge does not again show an overheat condition.

If overheating occurs again you should have the vehicle attended to, as soon as possible, by a qualified mechanic.

SECTION 4 CUSTOMER ASSISTANCE AND GMH DEALERS

We want you to be happy with your new vehicle and with the people you deal with while you have the vehicle.

Normally, any problems which may arise with the sales transaction, operation or servicing of your vehicle will be handled by your Dealer's Sales and Service department.

We realise however that, with the best intentions, misunderstandings do occur sometimes.

If you have a problem that has not been settled to your satisfaction here's what to do:

STEP 1:

Discuss the problem with one of the Dealer's management people. If you feel you haven't got satisfaction from the Sales Manager or Service Manager — go to the General Manager or the Dealer himself.

STEP 2:

If it seems that no-one at the dealership can help fully, write to the GMH Zone Customer Assistance Manager in your State outlining your problem and including your name, address and telephone number; the vehicle model number and vehicle identification number; the vehicle delivery date and odometer reading and the Dealer's name and address. This information will be on your Vehicle Identification Certificate (inside the front cover).

STEP 3:

By now you should have satisfaction. If not, you can write to the GMH National Customer Assistance Manager, GMH Sales Pty. Ltd., P.O. Box 548D, Melbourne 3001.

GMH
CUSTOMER ASSISTANCE MANAGERS

QUEENSLAND
General Motors-Holden's Sales Pty. Ltd.,
Box 728, G.P.O.,
BRISBANE, QLD. 4001.

NEW SOUTH WALES AND AUSTRALIAN CAPITAL TERRITORY
General Motors-Holden's Sales Pty. Ltd.,
Box 481, P.O.,
EDGECLIFF, N.S.W. 2027.

VICTORIA AND TASMANIA
General Motors-Holden's Sales Pty. Ltd.,
Victorian Zone Service Division,
Box 548D, G.P.O.,
MELBOURNE 3001.

SOUTH AUSTRALIA AND NORTHERN TERRITORY
General Motors-Holden's Sales Pty. Ltd.,
Box 221, P.O.,
ELIZABETH, S.A. 5112.

WESTERN AUSTRALIA
General Motors-Holden's Sales Pty. Ltd.,
P.O. Box 426,
WEST PERTH, W.A. 6005.

AUTHORISED GMH DEALERS

(Note: Dealership names and locations listed are effective at the time of printing. These may change from time to time without notice.)

NEW SOUTH WALES — Metropolitan Dealers

ARNCLIFFE
Suttons Motors (Arncliffe) Pty. Ltd.,
9 Princes Highway

ASHFIELD
Muirs Motors (Ashfield) Pty. Ltd.,
252 Parramatta Road

BALGOWLAH
Mitchell Cox Holden
164 Condamine Street

BAULKAM HILLS
Tony Packard Holden
Cnr. Victoria Avenue & Windsor Road

BELMONT
Challenge Holden
444 Pacific Highway

BLACKTOWN
West City Motors
120-128 Sunnyholt Road

CABRAMATTA
Ron Hodgson Holden
266 Hume Highway

CAMPBELLTOWN
Paul Wakeling Holden
63 Blaxland Road

CARDIFF
Brian Kelly Holden
23-39 Macquarie Road

CHULLORA
Suttons Motors (Chullora) Pty. Ltd.,
Cnr. Hume Highway & Waterloo Road

CROW'S NEST
J. N. Caldwell (Holdings) Pty. Ltd.,
1 Alexander Street

DEE WHY
Barry Smith Holden
Cnr. May and Mooramba Roads

GORDON
Sundell Holden
Cnr. Pacific Hwy & McIntyre St

GOSFORD
Noble Motors
Pacific Highway

HOMEBUSH
Suttons Motors (Homebush)
112 Parramatta Road

HOMEBUSH
Gilbert & Roach Pty. Ltd.,
167-173 Parramatta Road

KINGSFORD
John Pelligrini Holden
263-271 Anzac Parade

LAKEMBA
Nash Holden
1018 Canterbury Road

LIVERPOOL
A. C. McGrath & Company
Cnr. Castlereagh St. & Hume Highway

MIRANDA
Greg Ball Holden
1-3 Kiora Road

NEWCASTLE
Young & Green Pty. Ltd.,
745 Hunter Street

PADSTOW
Purnell Bros. Holden
19 Davies Road

PARRAMATTA
Fair Deal Car Sales Parramatta
65 Church Street

PARRAMATTA
Hillsdon's Pty. Ltd.,
87 Church Street

PENNANT HILLS
Les Vagg Holden
351-355 Pennant Hills Road

RANDWICK
Boyded Randwick
265 Avoca Street

ROCKDALE
C. V. Holland
571 Princes Highway

RYDE
Muirs Motors (Ryde) Pty. Ltd.,
603-605 Victoria Road

SPRINGWOOD
Kerry's Motors Pty. Ltd.,
28 Great Western Highway

ST. MARY'S
Lance Motors Pty. Ltd.,
Corner Glossop & Harris Streets

TORONTO
Young & Green (Toronto) Pty. Ltd.,
Carey Street

VILLAWOOD
John A. Gilbert
766 Woodville Road

WAITARA
Sutton Motors Waitara
90 Pacific Highway

WARILLA
Wilson's Warilla Pty. Ltd.,
29 Shellharbour Road

WINDSOR
Erichsen Motors
122 George Street

WOLLONGONG
Dwyers Pty. Ltd.,
31-33 Crown Street

WYONG
W. M. Holden
Pacific Highway

NEW SOUTH WALES — Country Dealers & Service Dealers

Consult your local Yellow Pages under Motor Cars — New for Addresses and Telephone Numbers.

- ADELONG
- ALBURY
- ARDLETHAN
- ARMIDALE
- BALLINA
- BARADINE
- BARHAM
- BARRABA
- BATHURST
- BEGA
- BELLINGEN
- BLAYNEY
- BOMBALA
- BOURKE
- BOWRAL
- BREWARRINA
- CANOWINDRA
- CASINO
- CESSNOCK
- COBAR
- COFF'S HARBOUR
- COLLARENEBRI
- CONDOBOLIN
- COOLAMON
- COOMA
- COONABARABRAN
- CONAMBLE
- COOTAMUNDRA
- COROWA
- COWRA
- CROOKWELL
- CULCAIRN
- DENILIQUIN
- DORRIGO
- DUBBO
- DUNGOG
- EDEN
- FINLEY
- FORBES
- GILGANDRA
- GLEN INNES
- GLOUCESTER
- GOULBURN
- GRAFTON SOUTH
- GRENFELL
- GRIFFITH
- GULARGAMBONE
- GUNDAGAI
- GUNNEDAH
- GUNNING
- GUYRA
- HARDEN
- HAY
- HOLBROOK
- INVERELL
- JERILDERIE
- JUNEE
- KANDOS
- KATOOMBA
- KEMPSEY
- KIAMA
- KURRI KURRI
- KYOGLE
- LAKE CARGELLIGO
- LEETON
- LISMORE
- LITHGOW
- MACKSVILLE
- MACLEAN
- MAITLAND
- MILTON
- MOLONG
- MOREE
- MORUYA
- MOSS VALE
- MUDGEE
- MULLUMBIMBY
- MUNGINGI

- MURWILLUMBAH
- MUSWELLBROOK
- NARRABRI
- NARRANDERA
- NARROMINE
- NOWRA
- NYNGAN
- ORANGE
- PARKES
- PEAK HILL
- PORT MACQUARIE
- QUIRINDI
- SCONE
- SINGLETON
- TAMWORTH
- TAREE
- TEMORA
- TENTERFIELD
- TOTTENHAM
- TUMBARUMBA
- TUMUT
- TWEED HEADS
- WAGGA
- WALCHA
- WALGETT
- WALLA WALLA
- WARIALDA
- WARREN
- WAUCHOPE
- WELLINGTON
- WEST WYALONG
- WINGHAM
- WOODENBONG
- YASS
- YOUNG

AUSTRALIAN CAPITAL TERRITORY

FYSHWICK
Beazley & Bruce (ACT) Pty. Ltd.,
96 Newcastle Street

CANBERRA CITY
Beazley & Bruce (ACT) Pty. Ltd.,
44 Mort Street

WODEN
Commonwealth Motors Pty. Ltd.,
58 Melrose Drive

VICTORIA — Metropolitan Dealers

BENTLEIGH
Boyanton Holden
280 Centre Road

BERWICK
Neil & Ross Neilson
755 Princes Highway

BAYBROOK
Kevin Dennis Holden
272 Ballarat Road

BUNDOORA
Davies Dwyer Pty. Ltd.,
413 Grimshaw Street

BURWOOD
Dustings Hillyer Holden
1200 Toorak Road

CAULFIELD
Booran Holden
1049 Glenhuntly Road

CHELSEA
Harrison Holden
370 Nepean Highway

CHELTENHAM
Balmoral Holden
1212 Nepean Highway

DANDENONG
Patterson Cheney Pty. Ltd.,
200 Cheltenham Road

DANDENONG
Graeme Blanchard Holden
Princes Highway

DONCASTER
Lance Dixon Holden
601 Doncaster Road

ELSTERNWICK
Reg Hunt Motors Pty. Ltd.,
77 Nepean Highway

ESSENDON
Preston Motors (Essendon) Pty. Ltd.,
205-211 Keilor Highway

FAWKNER
M. & G. Mantello Holden
1263 Sydney Road

FERNTREE GULLY
Neilson Holden F.T.G.
980 Burwood Highway

FOOTSCRAY
Alan Mance Holden
435 Barkly Street

FOOTSCRAY
Patterson Cheney Pty. Ltd.,
130 Moreland Street

FRANKSTON
Bayside Holden
140 Dandenong Road

GEELONG
R. & B. Smith Pty. Ltd.,
510 Moorabool Street

GEELONG
Winter & Taylor (Sales) Pty. Ltd.,
23 Cavendish Street

GLEN WAVERLEY
Geoff Brady Holden
565-577 Springvale Road

HASTINGS
Westernport Holden
762 Flinders Road

HEIDELBERG WEST
Arthur Ellis Holden
66 Bell Street

LILYDALE
Noel Dight Holden
Main Street

MORNINGTON
Peninsula Holden
Cnr. Nepean Highway & Tyabb Road

OAKLEIGH
Garry & Warren Smith Pty. Ltd.,
1575 Dandenong Road

PRESTON
Grahan Hunt Holden
518 High Street

RINGWOOD
Patterson Cheney Holden
45-57 Maroondah Highway

SOUTH MELBOURNE
Patterson Cheney Holden
132 Sturt Street

WERRIBEE
Ballan Holden
Princes Highway

WEST MELBOURNE
Reg Hunt Motors
577 King Street

VICTORIA — Country Dealers & Service Dealers

Consult your local Yellow Pages under Motor Cars — New for Addresses and Telephone Numbers.

- ALEXANDRA
- ARARAT
- BACCHUS MARSH
- BAIRNSDALE
- BALLARAT
- BENALLA
- BENDIGO
- BIRCHIP
- BOORT
- CAMPERDOWN
- CASTERTON
- CASTLEMAINE
- CHARLTON
- COBRAM
- COHUNA
- COLAC
- COLERAINE
- CORRYONG
- DAYLSEFORD
- DERRINALLUM
- DIMBOOLA
- DONALD
- DROUIN
- ECHUCHA
- EUROA
- HAMILTON
- HOPETOUN
- HORSHAM
- KANIVA
- KERANG
- KOOWEERUP
- KORUMBURRA
- KYABRAM
- KYNETON
- LEONGATHA
- MAFFRA
- MANSFIELD
- MARYBOROUGH
- MILDURA
- MINYIP
- MORTLAKE
- NATHALIA
- NHILL
- NULLAWIL
- NUMURKAH
- NYAH
- PORTLAND
- QUAMBATOOK
- RAINBOW
- ROCHESTER
- RUTHERGLEN
- SALE
- SEA LAKE
- SEYMOUR
- SHEPPARTON
- ST. ARNAUD
- STAWELL
- SWAN HILL
- TALLANGATTA
- TIMBOON
- TRARALGON
- UNDERBOOL
- WANGARATTA
- WARBURTON
- WARRACKNABEAL
- WARRNAMBOOL
- WONTHAGGI
- WYCHEPROOF
- YARRAM
- YARRAWONGA

TASMANIA — Metropolitan & Country Dealers & Service Dealers

HOBART
Motors Pty. Ltd.,
179 Macquarie Street

BURNIE
Motors Pty. Ltd.,
84-89 Marine Terrace

DEVONPORT
Motors Pty. Ltd.,
628 Victoria Parade

KING ISLAND
Island Motors Pty. Ltd.,
Netherby Road, Currie

LAUNCESTON
Motors Pty. Ltd.,
165 Brisbane Street

SMITHTON
Motors Pty. Ltd.,
16 Nelson Road

ULVERSTONE
Motors Pty. Ltd.,
99 Reibey Street

QUEENSLAND — Metropolitan Dealers

ALBION
Bill Harrison Car Sales
Frodsham Street & Crosby Road

ASPLEY
Zupps (Aspley) Pty. Ltd.,
1442 Gympie Road

CLEVELAND
Russell Smith Holden
Cnr. Queen & Doig Streets

IPSWICH
Zupps Holden
246 Brisbane Road, Booval

MOOROOKA
John Sivyer Holden
1060 Ipswich Road

MT. GRAVATT
Zupps Motors Pty. Ltd.,
1310 Logan Road

NEWSTEAD
Eagers Retail Pty. Ltd.,
95 Breakfast Creek Road

NUNDAH
Eagers (Northside)
1319 New Sandgate Road

PETRIE
North Pine Motors Pty. Ltd.,
Gympie Road

REDCLIFFE
Village Holden
425 Elizabeth Street

ROCKLEA
Task Motors
1696 Ipswich Road

SPRINGWOOD
Motorama Holden
Pacific Highway & Brennan Street

WINDSOR
Leach Holden
143 Newmarket Road

WYNNUM
Doug Barton Holden
200 Tingal Road

QUEENSLAND — Country Dealers & Service Dealers

Consult your local Yellow Pages under Motor Cars — New for Addresses and Telephone Numbers.

- ATHERTON
- AUGATHELLA
- AYR
- BEAUDESERT
- BEERWAH
- BILOELA
- BLACKALL
- BOWEN
- BUNDABERG
- CABOOLTURE
- CAIRNS
- CALOUNDRA
- CHARLEVILLE
- CHARTERS TOWERS
- CLERMONT
- CLONCURRY
- CROWS NEST
- CUNNAMULLA
- DALBY
- DIRRANBANDI
- EMERALD
- GATTON
- GAYNDAH
- GLADSTONE
- GOONDIWINDI
- GYMPIE
- HUGHENDEN
- INGHAM
- INNISFAIL
- JULIA CREEK
- KILCOY
- KINGAROY
- LAIDLEY
- LONGREACH
- MACKAY
- MAREEBA
- MARYBOROUGH
- MITCHELL
- MONTO
- MORANBAH
- MOURA
- MT. ISA
- MURGON
- NAMBOUR
- NANANGO
- NOOSA HEADS
- PROSERPINE
- QUILPIE
- ROCKHAMPTON
- ROCKLEA
- ROMA
- SOUTHPORT
- SPRINGSURE
- STANTHORPE
- ST. GEORGE
- TOOWOOMBA
- TOWNSVILLE
- TULLY
- WARWICK
- WINTON
- YULEBA

SOUTH AUSTRALIA — Metropolitan Dealers

ADELAIDE
City Holden
203-221 Grenfell Street

ADELAIDE
United Motors Retail Ltd.,
72 Franklin Street

ELIZABETH
Peter Page Holden
Elizabeth Way

GLENELG
John H. Ellers Pty. Ltd.,
282 Brighton Road

MALVERN
Claridge Motors Pty. Ltd.,
361-367 Unley Road

MILE END
United Motors Co. Pty. Ltd.,
71 West Beach Road

PORT ADELAIDE
Smith Motor Co. Pty. Ltd.,
171 Commercial Road

REYNALLA
Brian Gill Holden
49-59 Main South Rd

VALLEY VIEW
Plaza Holden
817-839 North East Road

SOUTH AUSTRALIA — Country Dealers & Service Dealers

Consult your local Yellow Pages under Motor Cars — New for Addresses and Telephone Numbers.

- BALAKLAVA
- BERRI
- BURRA
- CEDUNA
- CLARE
- CLEVE
- CRYSTAL BROOK
- CUMMINS
- GAWLER
- JAMESTOWN
- KADINA
- KEITH
- KINGSCOTE
- KINGSTON
- LAMEROO
- LOXTON
- MAITLAND
- MALLALA
- MENINGIE
- MILLICENT
- MT. BARKER
- MT. GAMBIER
- MURRAY BRIDGE
- NARRACOORTE
- ORROROO
- PORT AUGUSTA
- PORT LINCOLN
- PORT PIRIE
- QUORN
- RENMARK
- STRATHALBYN
- TANUNDA
- VICTOR HARBOUR
- WAIKERIE
- WHYALLA
- WUDINNA
- YANKALILLA
- YORKETOWN

NORTHERN TERRITORY — Dealers

ALICE SPRINGS
Kittle Bros. (Alice Springs) Pty. Ltd.,
Cnr Wills Terrace & Railway Terrace

DARWIN
Suttons Motors (Darwin) Pty. Ltd.,
Cnr. Mitchell and Knuckey Streets

WESTERN AUSTRALIA — Metropolitan Dealers

BELMONT
Major Motors
225 Great Eastern Highway

CANNINGTON
Brian Gardner Holden
1308 Albany Highway

FREMANTLE
Shacks Holden
64 Queen Victoria Street

GOSNELLS
Lance Gibbons Holden
2325 Albany Highway

MANDURAH
Estuary Holden
1 Gibson Street

MELVILLE
Melville Motors Pty. Ltd.,
532-536 Canning Highway

MIDLAND
John Goldie Holden
161 Great Eastern Highway

MORLEY
Metro Motors Co. Pty. Ltd.,
212 Walter Road

NAVAL BASE
Shacks Cockburn
15 Rockingham Road

OSBORNE PARK
North City Holden
Cnr Scarborough Beach Rd
& Harborne Street

PERTH
City Motors
505 Newcastle Street

VICTORIA PARK
Young's Holden
529 Albany Highway

WANNEROO
Phoenix Holden
316 Berriman Drive

WESTERN AUSTRALIA — Country Dealers & Service Dealers

Consult your local Yellow Pages under Motor Cars — New for Addresses and Telephone Numbers.

- ALBANY
- BEVERLEY
- BRIDGETOWN
- BROOKTON
- BRUCE ROCK
- BUNBURY
- BUSSLETON
- CARNAMAH
- CARNARVON
- COLLIE
- CORRIGIN
- CRANBROOK
- DALWALLINU
- ESPERANCE
- EXMOUTH
- GERALDTON
- GNOWANGERUP
- GOOMALLING
- KALGOORLIE
- KAMBALDA
- KATANNING
- KELLENBERRIN
- KOJONUP
- KUNUNURRA
- MANJIMUP
- MERREDIN
- MOORA
- MORAWA
- MT. BARKER
- NAREMBEEN
- NARROGIN
- NORSEMAN
- NORTHAM
- PINGELLY
- PORT HEADLAND
- QUAIRADING
- WAGIN
- WILLIAMS
- WYALKATCHEM

SECTION 5 APPEARANCE CARE

CAUTION: Many cleaners may be poisonous or flammable or may cause damage to the vehicle interior/exterior. To help avoid serious personal injury and/or damage to the vehicle while using any cleaning agents or chemicals you should:

* **Follow the cleaning product manufacturers recommendations.**
* **Before using a product, ensure that it will not be harmful to the materials used in your vehicle.**
* **Ensure that the vehicle is well ventilated while using any cleaning agents in the interior.**
* **If using any flammable cleaning substance, do not allow naked flames or lighted cigarettes near the vehicle.**

CARE AND CLEANING OF THE INTERIOR

Cleaning Fabric-Type Trim

Dust and dirt which accumulates on the surface of fabric-type trim should be removed regularly with a vacuum cleaner or soft brush.

It is essential that spots or stains be removed from trim fabric as soon as possible after they have been made. If allowed to remain on the fabric for any length of time they very often become oxidised or set, and removal becomes difficult if not impossible.

REMOVAL OF NON-GREASY STAINS — Includes tomato sauce, coffee (black), egg, fruit, fruit juice, milk, soft drinks, wine, blood, etc.

- Carefully scrape off excess stain, then sponge fabric with cool water.
- If a stain remains, use a mild soap solution or cleaner such as AC Delco Fabric and Vinyl Cleaner.
- Use suds only on a clean sponge or soft bristle brush. Do not saturate the fabric or rub it harshly with a brush. Immediately after cleaning, wipe off excess suds with a slightly damp absorbent cloth.
- Immediately after wiping, force-dry the fabric with an air hose or hair dryer. (Use caution with hair dryer to help prevent fabric damage.)

REMOVAL OF GREASE, OIL AND FAT STAINS

Includes grease, oil, butter, margarine, shoe polish, coffee with cream, chewing gum, cosmetic creams, vegetable oils, wax crayon, tar and asphalts.

- Carefully scrape off excess stain, then use a suitable Spot Cleaner (Solvent Type). USE VERY LITTLE CLEANER, light pressure and clean cloths (preferably

cheesecloth). Cleaning should start at the outside of the stain, "FEATHERING" toward the centre. Keep changing to a clean section of the cloth.

- When you clean a stain from fabric, immediately dry the area with an air hose, heat dryer, or heat lamp to help prevent a cleaning ring. (Use caution with heat dryer or lamp to help prevent fabric damage.)
- If a ring forms, immediately repeat the cleaning operation over a slightly larger area with emphasis on "FEATHERING" towards its centre.
- Shoe polish, wax crayons, tar and asphalts will stain if left on trim, they should be removed as soon as possible. Use caution as the cleaner will dissolve them and may cause them to "bleed".

After cleaning, or better still when the vehicle is new, apply AC Delco Fabric Protector to help guard the fabric from future soiling.

Cleaning Vinyl Trim

Vinyl trim material should be regularly wiped over with a damp cloth to remove surface dust and dirt.

Should dirt accumulate and become embedded in the material pattern the following procedure is recommended.

1. Using luke warm water and soap, or AC Delco Velour Fabric and Vinyl Cleaner, work up thick suds on a piece of cheesecloth, and apply to the surface. A soft bristle brush can be used to advantage to remove stubborn stains or dirt embedded in the grain of the material.
2. Wipe off suds with a damp clean cloth.
3. Wipe dry with a soft cloth.

Cleaning Carpet

Thoroughly brush or vacuum the carpet to remove loose dirt etc. If the carpet is extremely soiled it can be cleaned using AC Delco Velour Fabric & Vinyl Cleaner. Clean approximately one square foot at a time. After each area is cleaned remove as much of the cleaner as possible with a vacuum cleaner. After cleaning the carpet, use an air hose to fluff the carpet pile, then dry the carpet. After the carpet is completely dried, use an air hose to again fluff the carpet pile.

Cleaning Seat Belts

Cleaning of the seat belts can be carried out by using a mild non-abrasive soap and luke warm water. After washing be sure to thoroughly sponge the washing solution out of the belts. Do not allow the belts to retract until they are thoroughly dry. Do not bleach or dye belts since this may severely weaken them.

Glass Surfaces

Glass surfaces should be cleaned on a regular basis. Use of GM Glass Cleaner or a commercial household glass cleaner will remove normal tobacco smoke and dust films sometimes caused by ingredients used in vinyls and interior plastics.

Never use abrasive cleaners on any vehicle glass, as they may cause scratches. If abrasive cleaners are used on the inside of the rear window the electric defroster element may be damaged. Avoid placing decals on the inside rear window, since they may have to be scraped off later.

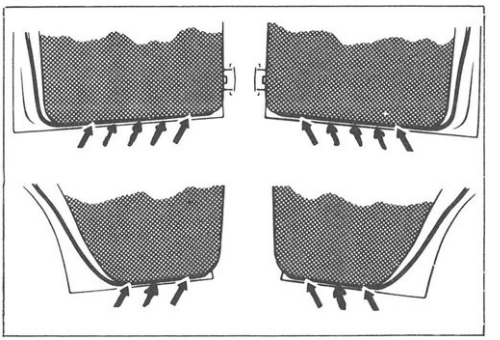
CARE AND CLEANING OF THE EXTERIOR

Underbody & Wheels

When a vehicle has been used under conditions exposing it to excessive mud and/or corrosive materials resulting from boat launching, driving along beaches or on tracks through fertilized paddocks, etc. — the underbody and wheels must be thoroughly flushed with fresh water to remove any deposited mud or corrosive material. Failure to perform this underbody cleaning promptly can result in accelerated rusting and deterioration of underbody components such as brake and fuel lines, frame, underbody floor pan, exhaust system, brackets, parking brake cables, etc.

Door Drain Holes

It is important that the drain holes at the bottom of the door panels are checked to make sure that they are free of dirt and foreign matter, which could trap water inside the panels. Clogged drain holes can be cleaned with a small screwdriver.



Care of Paintwork

The way you clean and care for the paintwork generally is most important in ensuring the brightness of the finish remains as you would like it.

The paintwork of the vehicle will provide a high degree of protection against the weather, but normal wear and deterioration will take place when it is exposed to the elements, especially for prolonged periods of time. You should endeavour to protect or garage your vehicle whenever possible.

SUBSTANCES POTENTIALLY HARMFUL TO AUTOMOBILE PAINTWORK

A. Road 'bloom' — a whitening or dulling effect of prolonged build up of exhaust pipe emissions, oils, dirt and other airborne pollutants combined with the normal weathering of paint.

B. Tree saps, bird droppings, salt water spray and other 'natural' environmental hazards seen as deposits that when removed too late can leave an etching or 'scar' as outlined by the shape of the dropping on the paintwork.

C. Tar spray, and industrial type fallout which can be of many potentially harmful types, may 'pit' the paint by chemically burning or bonding. In some cases it may cause spotting by discolouring or etching into the paint film.

NORMAL WASHING PROCEDURE

NOTE: Before washing, ensure that the vehicle is cool. **DO NOT** wash paintwork while the car is exposed to strong, hot, direct sunlight.

(a) With cold running water and starting from the roof, hose the vehicle all over from top to bottom. Do not use sponge or cloth at this stage. This will remove grit and other loosely adhering substances which could otherwise scratch the paint in the operations to follow.

(b) To a normal household bucket filled with lukewarm water, add NO MORE than two capfuls (approx. 15 ml) of a liquid detergent, such as AC Delco Wash & Wax.

(c) Soak a clean sponge in the bucket then apply liberally by wiping over the roof area of the vehicle and all the exterior glass. Do not allow to dry out. Rinse off immediately with cold running water from the hose.

(d) Repeat this process all over the remainder of the vehicle leaving the wheels until last. Do only a section at a time and do not forget to rinse off the 'soapy' section before it dries.

(e) After a final cold water rinse all over, the vehicle should be dried with a good quality chamois paying particular attention to all glass and chromed trim.

CAUTION: Care should be used when moving the vehicle after washing, in case water has affected the brakes. To dry the linings, lightly apply the brakes several times as the car is moving. DO NOT DRIVE THE CAR AT NORMAL SPEEDS UNTIL THE BRAKES ARE FUNCTIONING PROPERLY.

POLISHING/STAIN REMOVAL

Depending on the degree of exposure, the use of a good quality polish may assist in the protection against those elements potentially harmful to automotive paintwork described earlier.

As an example, the use of either AC Delco Liquid Silicon Polish or AC Delco Polishing Cream or equivalent every three months or so will minimise the affect of road bloom described earlier and may aid in the removal of some other 'natural' contaminants.

It is most important that any 'Fall Out', whether natural or industrial, be removed from the paintwork at the earliest opportunity. Prolonged contact may lead to permanent marring. For all types of stain removal FIRST use a warm water detergent mixture as for washing, and rinse off with clean, running water. Repeat if necessary and dry. Many 'Natural' types of fall out are water soluble and will be removed with this simple method.

Tar and other bituminous type stains may be removed with cleaners designed specifically for this purpose or use kerosine or white spirit. Use carefully and strictly as directed. If any softening of the paintwork occurs, stop immediately, and flush with water.

The consistent use of rubbing type compounds should be avoided as their purpose is to remove marring and embedded soil from paintwork and to this end will also remove a fair degree of the paint surface. It is recommended that rubbing compounds be used **only** when the paint surface has lost its smoothness from an accumulation of grit and other soil which can not be removed by the polish alone.

Paint Work Inspection

Regular inspection of the vehicle should be made for scratch marks, cracks or damaged areas, all of which could develop rust and thus affect paint finish. Any deep scratches, cracks or break-down in the finish should be repaired without delay. Care should be taken to ensure that any rusting is counteracted immediately, otherwise rust "creep" will extend beyond the damaged area. This applies particularly in sub-tropical areas or coastal districts, where the moist or salt-laden atmosphere accelerates rusting if it is allowed to develop through neglect.

Windscreen Cleaning

It is important, at all times, that the windshield surface be maintained in a clean condition so that the wiper blades may be as effective as possible in wiping clean the surface.

Abrasive materials must never be used to clean glass as they can cause scratches. A scratched windshield will cause difficulty in achieving proper vision, particularly in night driving. After the windshield has been cleaned with a wet sponge etc., it should be wiped over with a soft lint free cloth or chamois.

It is recommended that AC Delco Optikleen be added to the windscreen washer reservoir to assist the wipers in keeping the windshield clean whilst driving.

Cleaning Wiper Blades

Much of the oil and road scum thrown up onto the windshield glass, causing smearing when the wiper is switched on, transfers onto the wiper blade. Many owners, whilst they methodically clean the windshield glass, omit to clean the wiper blades and consequently smearing of the glass re-appears immediately the wiper blades are set in motion. The blades can be cleaned by simply lifting them off the windshield glass and then washing them carefully with warm water and a suitable detergent.

NOTE:

- **Never operate the wiper blades by hand as this may damage the wiper drive mechanism.**
- **Old wiper blades can cause windscreen scratching therefore they should be inspected regularly and replaced as necessary.**

Cleaning Tyres

Sponging with cold water is all that is necessary for normal cleaning of the tyres. Oil and grease can, and should be removed with soap, and water or detergent. For tar or other substances, a mild abrasive, such as mechanics' hand soap or kitchen cleaning powder, may be used if necessary. Thoroughly wash the tyres with water to finish. Petrol must not be used for cleaning tyres.

New tyre look can be restored by using AC Delco Tyre Black.

APPEARANCE CARE AND MAINTENANCE MATERIALS

GMH PART NO.	SIZE	DESCRIPTION	USAGE
M37432	390 × 370mm	Synthetic Chamois	Absorbs water and cleans paint, glass and chrome surfaces.
M37226	375ml	Wash & Wax	Cleans away dirt and grime at the same time adds a lustrous shine.
M37221	375ml	Liquid Silicon Polish	Imparts a high gloss, long lasting shine.
M37220	250g	Polishing Cream	Restores lustre to dull and faded paint.
M38695	250ml	Glass Cleaner	Cleans all glass surfaces.
M37933	500ml	Optikleen	Windshield washer solvent.
M38693	400g	Fabric Protector	Repels oil, grease and water-borne stains on most fabrics.
M38424	350g	Velour Fabric and Vinyl Cleaner	Cleans and deodorises velour, most fabric and vinyl upholstery, hood linings, mats and carpets.
M38696	250ml	Vinyl and Rubber Conditioner	Preserves and protects vinyl, leather and rubber.
M37429	304 × 250mm	Demister Cloth	Delays formation of mist on treated glass surfaces.
M38694	250ml	Tyre Black	Low-sheen natural rubber finish for tyres.
M37223	400g	Degreaser	Removes oil and grease from motors.
M37225	175g	AC-4	— Dispenses moisture on wet motors and electrical components. — Penetrates and loosens rusted or seized parts. — Lubricates and protects against corrosion. — Inhibits corrosion on battery terminals.
92026651	500ml	Brake Fluid	For use at brake service.
M39288	1 litre	Engine Coolant and Corrosion Inhibitor	— Helps protect radiators and cooling system.
M39338	4 litre		— Prevents rusting and sludge build-up.
M33028	27g	Solid Oil	Lubricant for locking mechanisms, door hinges, sticking windows.

SECTION 6A GENERAL MAINTENANCE INFORMATION

General Motors-Holden's Limited recommends that your vehicle be serviced at authorised GMH Dealers. These dealerships are equipped with facilities, trained personnel and General Motors parts to service and maintain your vehicle to factory recommendations.

The routine checks and scheduled maintenance services your car requires are described in the "GMH Maintenance Plan" in Section 6B of this handbook. Also included in Section 6B are the Owner's and Dealer's responsibilities related to servicing of vehicles. Ensure that you fully understand these responsibilities as failure to do so may affect your warranty.

The "GMH Maintenance Plan" is supplemented by this section (6A) which describes in detail many of the items that require servicing. GMH also publishes various service manuals which are available from your Dealer or from:—

Stan H. Earle,
46 Isabella Street,
Moorabbin, Vic., 3189.

CAUTION: As with any machine, take care when making any check, doing any maintenance, or making any repair, to avoid being injured. Note that some of the materials in this car may be hazardous if used, serviced, or handled improperly. Improper or incomplete service could also lead to the vehicle not working properly which may result in personal injury, or damage to the car or its equipment. If you have any question about carrying out some service, have the service done by a skilled technician.

REPLACEMENT FASTENERS

During vehicle maintenance, any fasteners used to replace older ones must have the same measurements and strength as those removed. Fasteners taken from the car should be saved for re-use in the same spot except where a mandatory replacement is required. Where a fastener cannot be used again, take care to choose a replacement that matches the old one. When retightening always use the specified torque (refer to Service Manual). For information and help, see your GMH dealer.

CAUTION: This car is dimensioned in the metric system. All fasteners are metric and many are very close in dimension to common imperial or SAE fasteners. Mismatched or incorrect fasteners can result in damage to the car or possibly personal injury.

OPENING THE HOOD

To unlock, pull the hood lock handle located below the dash.

To open the hood, release the safety catch located on the grille under the centre edge of the hood and raise the hood.

To hold the hood open, unclip the stay and insert the end in the hole provided in the underside of the hood.

To close the hood, raise the hood slightly, remove the stay, clip it into its holder and lower the hood till it clicks over the safety catch. Push down firmly on reinforced edge of hood to engage main hood lock.

Check if the hood is closed and locked properly, by trying to lift the edge of hood.

Hood Lock Maintenance

Lubricate the hood lock periodically. Wipe off surface dirt from all functioning parts and smear a little grease on them. Ensure that the lock and release mechanisms work smoothly by operating several times.

ELECTRIC COOLING FAN

CAUTION: Your vehicle is fitted with a temperature controlled electric radiator cooling fan as standard equipment. Therefore, when working around the engine compartment with the engine running, keep clear of the fan as it may start operating without warning. Units fitted with air-conditioning also have an electric fan. However, this fan operates only when the air intake lever is in "recirc. A/C" position and fan switched on.

ENGINE OIL AND FILTER RECOMMENDATIONS

It is vital that the following engine oil recommendations are adhered to if you are to obtain optimum reliability and life from your vehicle's engine.

Initial Oil Fill and Running-In

A high quality 'SE' oil was installed in your engine at the factory. It is not necessary to change this factory installed oil prior to the first recommended normal change period. During the running-in period you should check the oil level more frequently since oil consumption may be higher until the piston rings become seated.

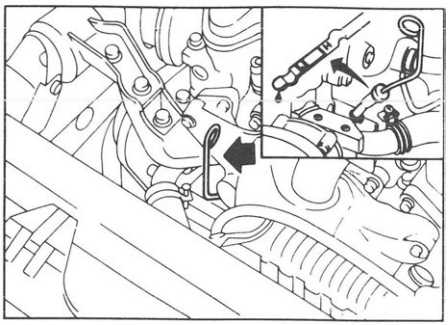
Checking Oil Level

The engine oil must be maintained at the right level to assure proper lubrication of your car's engine. It is the owner's responsibility to check the oil level at regular intervals, according to the following instructions.

The best time to check it is before running the engine. This will allow oil that has been circulated through the engine to drain back into the crankcase.

To make an accurate oil level check:

- Park the car on a level surface.
- Remove the dipstick and wipe it clean.
- Reinsert the dipstick all the way into the tube for an accurate reading.
- Remove the dipstick and check the oil level. It should be between the "H" (High) and "L" (Low) marks.
- After taking the reading, replace the dipstick in its tube.



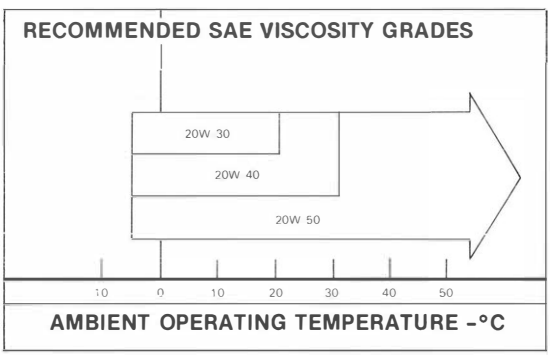
If the dipstick shows the oil level below the "L" mark, add sufficient oil into the oil filler located on the rocker cover to raise the level to the "H" mark. Do not overfill.

Some oil addition may be required between oil changes or during the running-in period, depending on the severity of operating conditions.

Choosing the Right Quality and Grade of Oil

Use only premium quality SE or SF oil (API Service classification) having the correct S.A.E. Viscosity grade suitable for the climatic conditions in which the vehicle is driven. Refer to the chart below when choosing suitable engine oil grade to suit the ambient temperature range anticipated for the period during which the oil will be used.

IMPORTANT: Non-detergent, break-in oils and other low quality oils are specifically not recommended for use in your engine. Similarly, the use of tune up compounds, friction reducing compounds and other supplemental additives is not recommended. Use of any of these may void your new vehicle warranty.



Oil Change Intervals

The interval between oil changes depends upon what you use the car for and where it is driven. If the vehicle is operated under **extreme conditions** such as continuous driving on dusty roads, towing long distances or stop/start short distance driving, then the oil will need to be changed more frequently.

The chart below should assist in determining the proper oil change intervals.

TYPE OF USE	CHANGE INTERVAL
OPERATING IN DUSTY AREAS	CHANGE ENGINE OIL EVERY 5,000 KILOMETRES OR 3 MONTHS, WHICHEVER COMES FIRST
TOWING A TRAILER	
IDLING FOR EXTENDED PERIODS AND/OR LOW SPEED OPERATION SUCH AS FOUND IN CITY TAXI OPERATION AND DOOR-TO-DOOR DELIVERY SERVICE	
OPERATING WHEN OUTSIDE TEMPERATURES REMAIN BELOW 5°C AND WHEN MOST TRIPS ARE LESS THAN 5 KILOMETRES	
OPERATING ON A DAILY BASIS, AS A GENERAL RULE, FOR SEVERAL KILOMETRES AND WHEN NONE OF THE ABOVE CONDITIONS APPLY	CHANGE ENGINE OIL EVERY 10,000 KILOMETRES OR 6 MONTHS, WHICHEVER COMES FIRST

Used Oil Disposal

Do not dispose of used engine oil (or any other oil) in a careless manner such as pouring it on the ground, into sewers, or into streams or bodies of water. Instead, recycle it by taking it to a used oil collection facility which may be located in your area. If you have a problem disposing of your used oil, it is suggested that you contact your dealer or a service station.

Oil Filter Replacement

The oil filter should be replaced every 6 months or 10,000 kms, whichever occurs first. However, under prolonged dusty driving conditions it is recommended that the filter be replaced every 5,000 kilometres or 3 months, whichever occurs first.

NOTE: When replacing the oil filter remember to add additional oil. Refer to engine oil capacities, Section 7. Always use high-quality filters such as AC filters.

Some Notes on Oil Consumption

Every internal combustion engine uses a certain amount of oil, especially during the running in period. Your engine is dependant on oil to lubricate the cylinder walls, pistons, rings and valve stems. A thin film of oil is left on the cylinder walls, some of

which is carried into the combustion chamber and burnt during the combustion process. This also applies to the film of oil on the valve stems which is drawn into the combustion chamber and burnt.

There are several other factors that contribute to the rate of oil consumption in your engine, apart from mechanical malfunctions such as worn pistons, rings, valve stems and guides. These factors are: the way in which the vehicle is operated, the quality and grade of oil, the oil level, and dilution of the oil.

- **OPERATION OF THE VEHICLE**
  Sustained high engine speeds will increase oil consumption because higher speeds increase engine temperature which lowers oil viscosity thus allowing more oil to reach the combustion chamber. Towing a heavy load will also result in increased oil consumption due to increased engine temperature and hence lower oil viscosity.

  It is recommended that heavy load towing be done only after the vehicle has been 'run-in'.

- **QUALITY AND GRADE OF OIL**
  Oil viscosity is a significant factor in oil consumption, therefore if you use an oil which is too "thin" (low viscosity) your oil consumption will increase. Refer to the chart in this section for the correct grade of engine oil to suit your driving conditions.

- **OIL LEVEL**
  Maintaining a proper oil level is also an important factor in controlling oil consumption. An overfull crankcase allows the reciprocating parts of an engine to splash oil onto the cylinder walls in quantities greater than the piston rings can control. This excess oil will be drawn into the combustion chamber and burnt. Refer to 'Checking Oil Level' in this section for maintaining correct levels.

- **Dilution**
  Probably the most prevalent complaint of oil consumption comes from the motorist whose vehicle is frequently driven at below normal operating temperatures. The oil becomes diluted by fuel and moisture which settles in the oil pan and may even raise the oil level creating a false reading on the oil level dipstick. For example, in a vehicle that has accumulated 1,500 kilometres of short distance or intermittent city operating and has consumed a normal amount of oil, the level may not have dropped from the "Full" mark, due to dilution. If this vehicle is driven for some distance at highway speeds on a warm day, the dilution elements evaporate, lowering the oil level and the motorist assumes the oil "lost" has been consumed in the highway operation.

  After taking into account the above factors, if you are still concerned that your engine has excessive oil consumption then you should discuss the situation with a GMH Dealer. Remember that an engine's oil consumption should not be judged until it has run at least 7,000 kilometres.

TRANSMISSION OILS

Manual Transaxle Oil Level

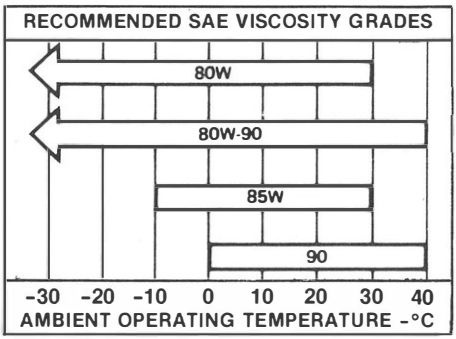
The oil level in the manual transaxle, must be checked and/or replaced at the intervals specified in the Maintenance Schedule.

With the vehicle standing on level ground, remove the filler plug and check that oil is level with bottom of filler plug opening.

The filler plug is located on the forward side of the transaxle housing when the transaxle is viewed from the front of the vehicle.

See Lubricant table, in Section 7 for the correct type of oil to use in the transaxle.

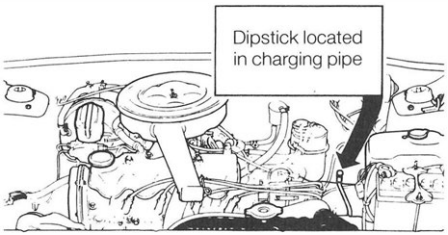
Refer to chart when choosing suitable oil grade to suit the ambient temperature range the vehicle will be operated in.



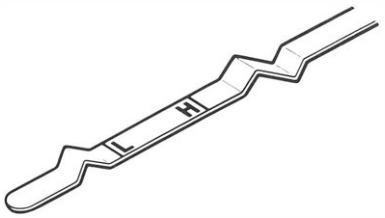
Automatic Transaxle Fluid Level

The oil level in the automatic transaxle must be checked or replaced at the intervals specified in the Maintenance Schedule. The transaxle oil will need to be checked and/or replaced more often if the vehicle operates under extreme conditions. (See "Vehicle Operating Conditions", in Section 6B.)

Automatic Transaxle fluid level will vary significantly with temperature. The area between the "L" and "H" marks on the dipstick represents the acceptable range for fluid level at normal fluid operating temperature (50°C to 80°C). This temperature will be attained (from cold start up) after a minimum of 10 minutes normal suburban driving.



1. Park the vehicle on a level surface and set the parking brake.
2. Start the engine and then move the selector lever through each gear range, ending in "P".
3. Check the fluid level with the engine idling.



If the vehicle has been driven for a long time at high speeds, or in city traffic in hot weather, or if it is being used to pull a trailer, the accurate fluid level cannot be read. You should wait until the fluid has cooled down (about 30 minutes).

4. Remove the dipstick and wipe it clean with lint-free paper.
5. Re-insert the dipstick into the charging pipe as far as it will go.
6. Remove the dipstick and note the reading.

If the level is below the 'L' mark, add fluid to the charging pipe.

For the correct specification of fluid to use in the automatic transmission refer to the Lubricant chart in Section 7.

Do not overfill.

ENGINE COOLING SYSTEM

CAUTION: If your cooling system overheats, see "Engine Overheating" in Section 3. Continued operation of the engine even for a short time could result in a fire and the possibility of personal injury and/or severe vehicle damage.

Coolant Recovery System

Your car is fitted with a coolant recovery system. As the car is driven, the engine coolant is heated and expands. The radiator pressure cap senses this expansion and releases coolant out through the overflow hose into the coolant recovery reservoir. This reservoir is situated in the engine compartment behind the drivers side headlight. When the vehicle has stopped and the system cools down, coolant is drawn back into the radiator.

Radiator Pressure Cap

This cap is designed to allow the cooling system to operate at temperatures over 100°C without boiling. It does this by causing the system to operate under pressure which in turn raises the boiling point of the coolant. The pressure rating of the radiator cap is specified in Section 7 of this Handbook. Have the cooling system and radiator cap pressure tested routinely by your GMH Dealer. If a replacement cap is needed, be sure to use only a cap which is specified for your model.

Thermostat

The engine coolant temperature is controlled by a thermostat. It stops coolant flow through the radiator until a preset temperature is reached. This thermostat is installed in the engine coolant outlet on the engine block. If your engine is overheating or running too cool then the thermostat should be checked for correct operation.

Corrosion Protection

To protect components of the cooling system from corrosion your new vehicle was filled with coolant containing corrosion inhibitor. It is recommended that all future additions of coolant to the system should be made with a pre-mixed coolant comprising clean water and a reputable brand of corrosion inhibitor. Refer to Specifications, Section 7, for recommended inhibitor. Add 25 ml inhibitor per litre of water.

If you live in an area where water has a high level of mineral or chemical content use rainwater or distilled water.

Use of Anti-Freeze Fluid

If your vehicle is to be parked overnight or operated for any length of time in regions where temperatures of 0°C or below are encountered the use of a reputable brand of anti-freeze fluid is essential.

The recommended anti-freeze fluid is permanent type ethylene/glycol. Follow carefully the anti-freeze manufacturer's instructions when adding anti-freeze to the cooling system.

Anti-freeze also contains a corrosion inhibitor therefore it is not necessary to add a separate inhibitor.

IMPORTANT: Do not mix different types of anti-freeze or corrosion inhibitors as they may be incompatible. If a different type has been used in the cooling system flush the system with clean water before refilling with coolant containing the recommended corrosion inhibitor or anti-freeze fluid.

CAUTION: Corrosion inhibitors and anti-freeze fluids are poisonous. Use extreme care when handling these materials, particularly when draining your vehicle's cooling system. If swallowed, seek medical attention.

Cold Weather Draining

If your vehicle's cooling system does not contain anti-freeze then the radiator and cylinder block must be drained before parking in freezing conditions. Failure to do so could result in bursting the radiator and/or cracking the cylinder block if the coolant freezes.

NOTE: Draining of the engine radiator and cylinder block will not drain the coolant out of the heater core therefore it may still be subject to freezing damage. Therefore, to ensure as much coolant as possible is drained from the heater core, move the heater control level to full 'HOT' position when draining cooling system.

Checking Coolant Levels

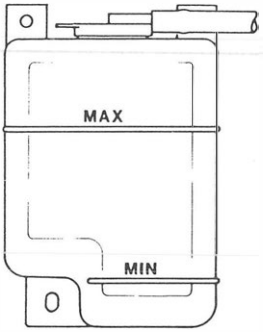
The amount of coolant in the cooling system is to be checked as follows:

The level in the radiator should be checked at least weekly, preferably when the engine is cold. Follow the instructions under 'Coolant Replacement' for the correct way to remove the radiator cap and add coolant.

CAUTION: Do not remove the radiator cap when the engine and radiator are hot. Scalding fluid and steam can be blown out under pressure if the cap is removed from a hot radiator.

The level of coolant in the recovery reservoir should be checked at regular intervals e.g. when refuelling at a service station.

When the engine is cold the coolant level should be at or just above the 'MIN' mark on the reservoir. When the engine is at normal operating temperature the level should be somewhere between half full and the 'MAX' mark on the reservoir. If required, top up the recovery reservoir with a mixture of water and corrosion inhibitor or anti-freeze fluid depending on which additive is being used in the cooling system.



If you regularly have to add coolant to either the radiator or the recovery reservoir you should see your GMH dealer for a cooling system check.

Coolant Replacement

To maintain the cooling system in good condition it is recommended that the coolant be replaced at the following intervals:

- Coolant containing corrosion inhibitor only — replace every 12 months/20,000 km.
- Coolant containing ethylene/glycol anti-freeze — replace every 24 months/40,000 km.

Drain, flush and refill the cooling system as per the following procedure:

1. When the engine is cool, remove the radiator cap as follows:
   - Depress the cap and turn slowly for half a turn.
   - Wait until any residual pressure (indicated by a hissing sound) is relieved, then press down on the cap and continue turning it to the left until it can be removed.
2. To drain the coolant, disconnect the lower radiator hose from the radiator.
3. Now reconnect the lower radiator hose and refill the system with clean water. Run the engine for a short time to allow the coolant to circulate right through the system.
4. Drain the coolant again as per step 2, then reconnect the lower radiator hose.
5. Refill the system with premixed coolant comprising clean water and corrosion inhibitor or clean water and anti-freeze fluid. Follow the instructions on the manufacturers package when adding either of these additives. Fill the radiator until coolant reaches the level of the overflow tube.
6. Run the engine at fast idle with the radiator cap removed until the upper radiator hose is hot. (This shows that the thermostat is open and coolant is flowing through the system.) With the engine idling, add coolant to the radiator as required until it reaches the level of the overflow tube. Install the radiator cap by pushing down and rotating to the right until the "stop" is reached.
7. Top up the Recovery Reservoir as required.

BRAKE FLUID LEVEL

The fluid in the master cylinder should be checked regularly in conjunction with checking the oil and coolant levels. The fluid level visible through the 'see through' reservoir should be maintained between the MIN and MAX level markings. If the fluid is between these levels do not remove the master cylinder cap. Remember that brake fluid exposed to the atmosphere will quickly absorb moisture which in turn lowers the performance of the fluid as well as increasing risk of corrosion of brake components.

If the master cylinder requires constant topping up it could indicate that a malfunction exists in which case it should immediately be brought to the attention of your GMH dealer.

Use only new brake fluid. Use of an old, used or inferior brake fluid may endanger the functioning of the brake system.

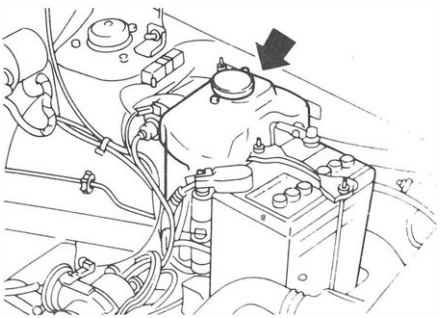
At the intervals specified in the Maintenance Schedule, the brake hydraulic system must be drained, flushed and refilled with specified grade of brake fluid from a newly opened container.

Refer to fluid/lubricant chart in Section 7 for specification of brake fluid.

WINDSCREEN WASHER FLUID LEVEL

Check the fluid level in the reservoir and add fluid if necessary. Use a windscreen washer fluid, such as Optikleen. Do not operate the washer switch when the reservoir is empty and never operate the wiper on a dry screen.

On models fitted with a rear wiper washer, the rear screen washer uses the same reservoir as the front screen.



Windscreen Wiper Blades and Washers

Check the wiper blades for operation and cleanliness. If the wiper blades do not wipe the windscreen clean after the blades and windscreen have been wiped with a cloth, renew the blades.

Adjust the washer spray nozzles so that the water stream is aimed towards the centre of each wiper sweep.

BATTERY (12 VOLT)

The battery which is located in the engine compartment just behind the left side headlamp, has its Negative (–) terminal 'grounded'.

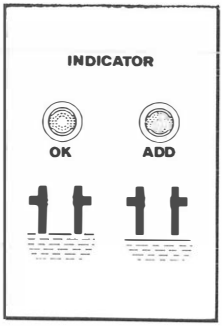
NOTE: Never disconnect the battery while the engine is running as this could cause damage to the vehicle's electrical components.

Whenever a battery charger is used always connect Positive (+) to Postive (+) and Negative (–) to Negative (–).

CAUTION: Follow the precautions listed in the 'jump starting' caution (see Section 3 of this manual) when working on or near a battery. Personal injury (particularly to eyes) or property damage may result from battery explosion, battery acid or electrical (short circuit) burns.

CHECKING ELECTROLYTE: In normal service, check the level of electrolyte at one month intervals. At high temperatures, or if driving long distances at high speeds, check the level more frequently.

Check the fluid level in each filler. If necessary add only distilled water to bring the level to the indicator in each filler opening. Do not overfill.



CLEANING: Brush clean with diluted ammonia or baking soda solution and then flush off with clean water. Take care to prevent neutralizing solution from entering any cells.

Battery terminals should be made shiny with a wire brush or abrasive paper. Cover the terminals and clamps with a thin coating of petroleum jelly to help retard corrosion. To meet your car's power requirements it is recommended that when you need to replace your battery, you choose an AC-Delco battery of the type which is specified for your vehicle.

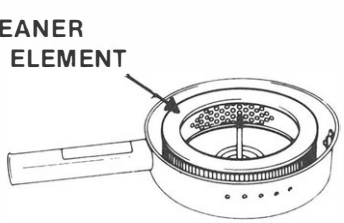
ENGINE DRIVE BELTS

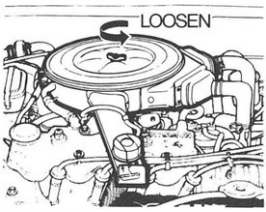
The various engine drive belts should be kept at the correct tensions. A loose belt will wear more quickly and the resultant slipping does not allow the particular component viz; alternator, water pump or air-conditioning compressor, to operate correctly. Premature failure of the belt which drives the water pump could result in a serious engine overheating problem.

Inspection and adjustment of drive belts should be carried out at the intervals specified in the Maintenance Schedule or as required to maintain correct operation at all times. If you have any doubts about servicing the engine drive belts yourself, then have it done by a GMH Dealer. He has the necessary equipment to correctly tension the drive belts.

AIR CLEANER

The air cleaner is disposable and should be replaced as outlined in the Maintenance Schedule. Do not wash or oil it or clean it with an air hose. If your vehicle operates in dusty conditions for any length of time the element should be replaced more often. Your GMH Dealer can advise you. When replacing the element, a genuine GMH replacement cleaner element is recommended.





CAUTION: The air cleaner also functions as a flame arrestor in the event of engine backfire. The air cleaner should be installed at all times unless temporary removal is necessary for repair or maintenance. With the air cleaner removed, backfiring could cause fire in the engine compartment.

STEERING WHEEL PLAY

With the steering wheel in the straight ahead position, measure the amount of steering wheel play. With the front wheels in the straight ahead position and while watching them, turn the steering wheel from side to side within the range of movement allowed without moving the front wheels. The amount of movement of the steering wheel under this condition, is the steering wheel play.

If the play exceeds 8 mm (5/16 in.) have the steering adjusted by your authorised GMH Dealer.

CLUTCH PEDAL TRAVEL

The clutch pedal should not encounter resistance during the first 11 mm to 21 mm of its stroke. Resistance should then be felt by the foot riding on the clutch pedal. If the pedal stroke is out of adjustment, have the clutch adjusted by your authorised GMH dealer.

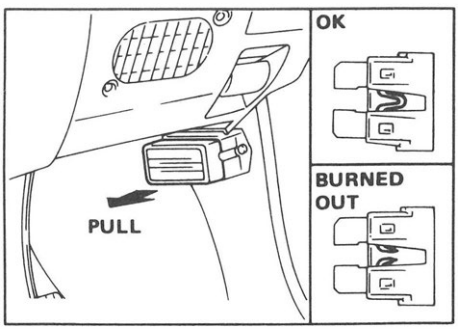
FUSES

The fuse box is located on the body side panel just below the right hand end of the dash.

Should an electrical failure occur, first check for a burned-out fuse.

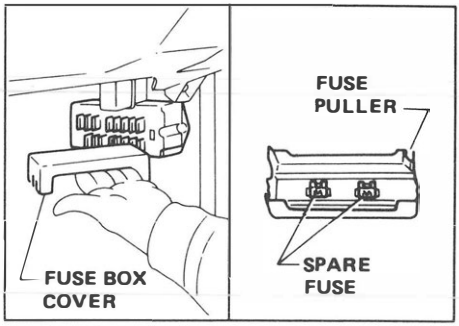
1. Remove fuses by using the fuse puller which is part of the fuse box cover.
   If it is burned out, replace it.

- **Before replacing any fuse, be sure to check the fuse specifications listed on the fuse box cover.**



- **Never use a fuse of higher amperage rating than that specified.**

2. Should a replacement fuse burn out again, it is probable that there is a fault in the electrical system. Have it checked and repaired by your GMH dealer.



BULB REPLACEMENT

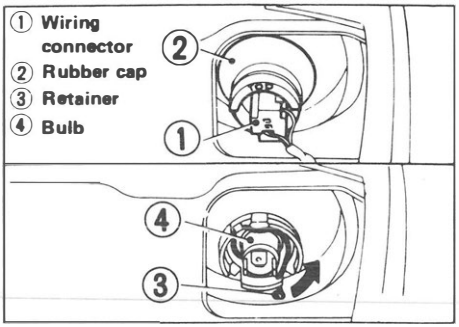
Before replacing a bulb, first make sure that the bulb to be replaced is in fact faulty, and it is not some other part of the circuit that is at fault.

If you are in any doubt, consult your authorised GMH Dealer. Refer to 'Specifications' in Section 7 for the correct specifications of replacement bulbs.

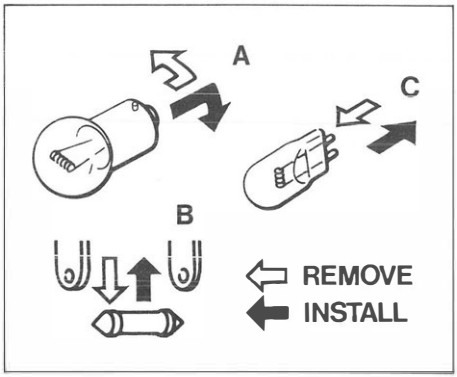
Headlight

(Semi-Sealed Beam Type)

1. Disconnect the battery ground cable.
2. Disconnect the wiring connector from the rear end of the bulb.
3. Remove the rubber cap.
4. Remove the retainer. The headlight bulb can then be removed.
5. The new bulb should be installed in the reverse order of removal.



- **Do not touch the glass surface of the halogen bulb with bare hands or dirty gloves, etc.**
- **When installing the rubber cap, be sure that the word "TOP", in raised letters, which appear on it is on the upper side.**
- **When aiming adjustment is required, see your GMH dealer.**



Other Lights

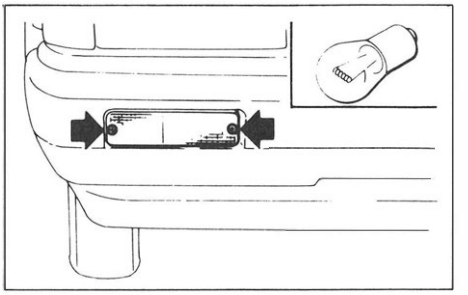
All other lights have incandescent bulbs of type A, B or C. To remove them from their holders, type 'A' is gently pressed in and turned anti-

clockwise, type 'B' is pulled out from its clips and type 'C' is pulled straight out of its holder. Replacement is in reverse order to removal.

To gain access to the various bulbs, proceed as follows.

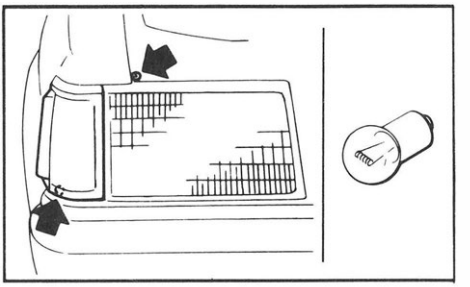
Front Turn Signal Light

Remove the two screws indicated by arrows. Remove light, withdraw bulb, fit replacement bulb and refit light. Tighten screws ensuring lens is secure.



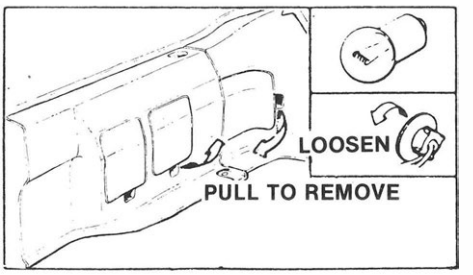
Front Combination Light

Remove three screws indicated by solid arrows and remove light. Twist bulb holder out from rear of light, change bulb, replace holder and twist back into place. Refit light.



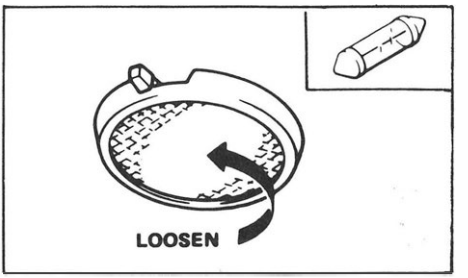
Rear Combination Light

Open rear hatch and raise tonneau cover where fitted. Pull flaps off interior trim behind lights to extract bulb holders. Change bulb, replace holders and flaps.



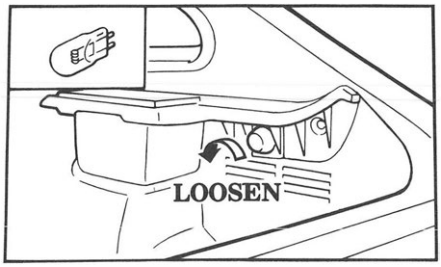
Interior Light

Twist light cover off as indicated above, remove festoon type bulb, fit new one and replace cover.



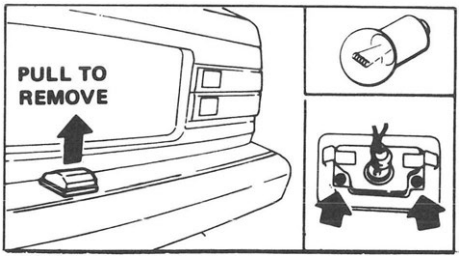
Luggage Compartment Light

Open rear hatch and raise tonneau cover, where fitted. Twist lens off as shown, pull bulb straight out, push new bulb into socket and replace lens.



Number Plate Lights

Prise lights out of bumper bar, invert, remove two screws to separate holder from lens. Twist bulb out and replace with new one. Fit lens to holder and refit light assembly in bumper bar.



Instrument Panel Lights

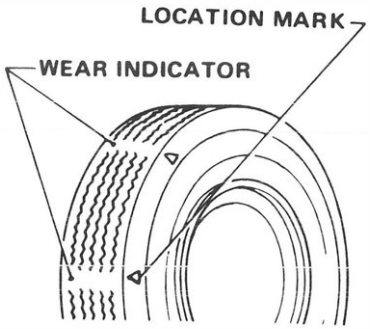
Access to these lights can only be gained by removing the instrument cluster. Consult your GMH Dealer when any of these lights need replacing.

WHEEL AND TYRE

Tyre Care

Tyres have tread wear indicators in the tread. When the indicators appear, the tyre should be replaced. When replacing tyres or wheels, use the tyre size and type recommended on the tyre placard affixed to the car or listed in the chart on specifications page.

Tyres and wheels other than those recommended can adversely affect the ride, handling, ground clearance, body to tyre clearance and speedometer calibration.



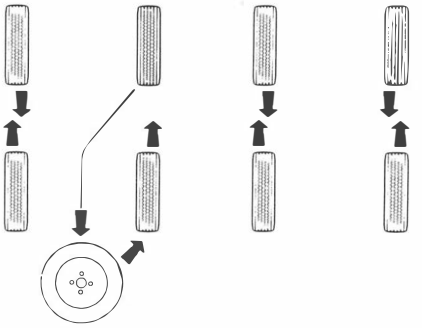
All tyres and wheels on the car must be of the same size, type and load carrying capacity. For safety reasons radial, belted and bias, or conventional belted tyres, must not be mixed.

If snow tyres are to be fitted, they must be of a size and type equal to the other tyres on the car.

Tyre Rotation

The illustrated tyre rotation system is recommended.

For tyre rotation interval, refer to the "Maintenance Schedule" in Section 6B.



5 WHEELS **4 WHEELS**

Tyre Inflation Pressures

Check tyre inflation pressures frequently and maintain them at the pressures shown on the tyre placard affixed to the glove box lid of your car. Note that the specified pressures are Cold tyre pressures.

Tyre inflation pressure may increase as much as 30 kPa (4 psi) or more when the tyres become hot from driving. DO NOT reduce pressures to compensate for this build up. As a guide for checking warm/hot tyres under all conditions allow pressure to read 10% above that recommeded.

TYRE REFERENCE TABLE					
		RECOMMENDED COLD INFLATION PRESSURE KPa (P.S.I.)			
		LIGHTLY LADEN		FULLY LADEN OR HIGH SPEED	
WHEEL	TYRE SIZE	FRONT	REAR	FRONT	REAR
4.5 JJ x 13 STEEL	P165/75 SR13	180 (26)	180 (26)	180 (26)	180 (26)

Tyre Maximum Load Rating and Maximum Vehicle Loading

It must be clearly understood that the maximum load rating shown on the tyre placard in the glove compartment is not an actual load capacity that can be used for each wheel. While the tyre manufacturers rate the tyre for this load application at the maximum pressure shown on the placard, the vehicle manufacturer's suspension, ride and handling characteristics must be taken into account. Therefore, the maximum permissible rear axle loading specified for your vehicle should not be exceeded. Refer to 'Towing a Trailer', Section 2, for axle load limits.

SECTION 6B GMH MAINTENANCE PLAN AND SERVICE COUPONS

This section contains all the Owner Inspections and Services and Scheduled Maintenance Services which are considered necessary for your vehicle. Safety, economy, emission control, performance and reliability cannot be assured unless regular maintenance is performed, preferably by factory-trained technicians.

OWNER'S RESPONSIBILITY — PLEASE READ CAREFULLY

It is the owner's responsibility to ensure that all routine and scheduled maintenance services described in this section are carried out at the recommended intervals.

The recommended intervals are only for vehicles subject to normal operating conditions. Vehicles subject to extreme operating conditions will need more frequent servicing on some items as described under "Vehicle Operating Conditions" later in this section.

NOTE: All maintenance services as listed in this handbook and replacement of service items are the responsibility of the owner and as such are NOT considered, under the provisions of the new vehicle warranty to be rectification of defects in material and workmanship. Items such as wheel alignment, necessary adjustments to drive belts, transmission, clutch, parking brake etc. or any other items which may require servicing due to fair wear and tear will be carried out at the owner's cost.

Failure to have proper maintenance services carried out by an Authorised GMH Dealer or Service Dealer may void your new vehicle warranty.

It is strongly recommended that you read the "New Vehicle Warranty" at the front of this handbook, so that you are conversant with your entitlements.

OWNER INSPECTIONS AND SERVICES

Listed below are vehicle inspections and services which should be performed by either you or a qualified technician at the frequencies indicated to help ensure proper safety and dependability of your vehicle. Take any problems promptly to your dealer or a qualified technician for service advice. Whenever repairs are necessary, have them completed at once. For your safety and that of others, any safety-related components that could have been damaged in an accident should be inspected. All needed repairs should be performed before operating your vehicle.

FREQUENCY	INSPECTION OR SERVICE	WHAT TO DO
BEFORE OPERATING YOUR CAR	Glass, mirrors, light and reflector condition	Look for broken, scratched, dirty or damaged glass, mirror, light or reflector that could reduce vision or visibility or cause injury. Replace, clean or repair promptly.
	Seat adjuster operation	When adjusting seat position, be sure seat adjusters latch by pushing seat forward and backward.
	Rearview mirror and sun visor operation.	Make sure friction joints hold mirrors and sun visors in place.
	Door, and rear hatch operation.	Make sure that all doors, and rear hatch close, latch and lock tightly.
	Warning lights and instruments.	Check operation of all warning lights and instruments. See Section 1E for details.
WHILE OPERATING YOUR CAR	Automatic transmission shift indicator operation.	Make sure the indicator points to the gear chosen.
	Wiper and washer operation.	Note the operation and condition of the wiper blades and the flow and aim of the washer spray. This includes the rear window wiper and washer if so equipped.
	Ventilation, Heating and/or Air Conditioning System operation.	Check that system operates as described in Section 1E. Pay particular attention to windscreen demisting operation.
	Horn Operation.	Blow the horn occasionally to make sure it works.
	Brake system operation.	Be alert to abnormal sounds, increased brake pedal travel or repeated pulling to one side when braking. Also, if the brake warning light comes on, something may be wrong. See "Brake Warning Light" in Section 1E.
	Exhaust system operation.	Be alert to any changes in the sound of the system or any smell of fumes. These are signs the system may be leaking or overheating. Have it inspected and repaired at once. Also see "Engine Exhaust Gas Caution (Carbon Monoxide)" in Section 2.

FREQUENCY	INSPECTION OR SERVICE	WHAT TO DO
	Tyres, Wheels and Alignment.	Be alert to a vibration of the steering wheel or seat at normal highway speeds. This may mean a wheel balance is needed. Also, a pull right or left on a straight, level road may show the need for a tyre pressure adjustment or wheel alignment.
	Steering system operation.	Be alert to changes in steering action. An inspection is needed when the steering wheel is harder to turn or has too much free play or if unusual sounds are noted when turning or parking.
	Headlight aim.	Take note of light pattern occasionally. If beams seem improperly aimed, or if oncoming cars frequently flash their headlights at you, have your headlight aim checked.
AT REFUELLING STOPS	Engine oil level†	Check level and add if necessary. See Section 6A for details.
	Engine coolant level†	Check level in coolant recovery reservoir and radiator. Add specified coolant as required. See Section 6A for details.
	Brake master cylinder reservoir level†	Check fluid level. Note: A low fluid level can indicate worn disc brake pads and these should be checked.
	Automatic transaxle fluid level†	Maintain level within operating range on dipstick.
	Battery electrolyte level	Check level and add distilled water if necessary.
	Windshield washer fluid level	Check level in container and add if necessary.
	Hood latch operation	When operating hood note the operation of secondary latch. It should keep hood from opening all the way when primary latch is released. Make sure that hood closes firmly after services are performed.
	Tyre pressures†	Maintain pressures as shown on the tyre placard located in the glove compartment. Don't forget the spare! Pressures should be checked when tyres are cold.
	†NOTE: A large loss in these systems may indicate a problem. Have them inspected and repaired at once. — Topping up is required when fluid levels fall to the "add" or minimum markings. — Use only the specified lubricants and fluids. See Section 7 'Specifications'.	

SEE OVER FOR CONTINUATION

FREQUENCY	INSPECTION OR SERVICE	WHAT TO DO
AT LEAST MONTHLY	Tyre and wheel inspection	Check tyres for abnormal wear or damage. Also check for damaged wheels. Replace as necessary. Abnormal tyre wear (front) indicates a wheel alignment may be required.
	Light operation	Check operation of license plate light, headlights including high beams, parking lights, taillights, brake lights, turn signals, backup lights and hazard warning flashers.
	Fluid leak checks	Periodically, after the car has been parked for a while, inspect the surface beneath the car for water, oil, fuel or other fluids. Water dripping from the air conditioning system after use is normal. If you notice fuel leaks or fumes, the cause should be found and corrected at once.
	Seat belts condition and operation	Inspect belt system, including webbing condition, buckle operation, retractor operation and anchor security.

VEHICLE OPERATING CONDITIONS

The frequency with which your vehicle requires maintenance servicing depends upon what type of conditions it is operated under.

Normal Conditions

The maintenance instructions contained in this handbook are based on the assumption that your car will be used as designed in accordance with the operating instructions given in this handbook:

— To carry passengers and cargo within the rear axle loading limits specified in Section 2 of this manual.

— On reasonable road surfaces within legal operating limits.

— On a daily basis, as a general rule, for at least several kilometres and,

— On correct grade fuel.

Extreme Conditions

If your vehicle operates under any of the extreme conditions listed in the following table it is recommended that some items be serviced more frequently than the intervals specified in the Maintenance Schedule.

No.	CONDITION
1.	Dust, dirt, loose road material.
2.	Muddy and wet areas.
3.	Cold weather (below 5°C) and when most trips are less than 5 km.
4.	Stop-start, excessive idling or low speed operation as experienced in inner city driving. e.g. taxi, door to door delivery vehicles.
5.	Caravan or trailer towing.

The following table lists those items that are recommended to be serviced more frequently for the particular extreme operating conditions experienced.

ITEM	EXTREME OPERATING CONDITIONS	"SUGGESTED" SERVICE INTERVALS FOR CONTINUOUS OPERATION UNDER EXTREME CONDITIONS
ENGINE OIL	1-3-4	CHANGE @ 5,000 km
ENGINE OIL FILTER	1	REPLACE @ 5,000 km
ENGINE AIR CLEANER ELEMENT	1	REPLACE @ 20,000 km
TRANSAXLE (MANUAL & AUTO) FLUID	5	CHANGE @ 40,000 km
ALL SUSPENSION AND STEERING COMPONENTS & DRIVE SHAFTS	1-2	INSPECT FOR DAMAGED, LOOSE OR MISSING PARTS @ 5,000 km
BRAKE, CLUTCH, FUEL & EXHAUST SYSTEMS	1-2	INSPECT FOR PROPER ATTACHMENT, LEAKS, CRACKS, CHAFING, ABRASION OR OTHER DETERIORATION @ 5,000 km
REAR DRUM BRAKES	1-2-4-5	REMOVE DRUMS, CLEAN & INSPECT @ 10,000 km
WHEEL BEARING GREASE	2	CHECK & REPLACE IF NECESSARY @ 20,000 km

NOTE: The extra services listed above should only be used continuously if your vehicle operates continuously under the conditions specified.

If you operate under any of these conditions on a one-off basis, e.g. holiday trip, then the extra service should be for that period only.

As a guide, if you operate continually for a period of one month or 1,500 kilometres under any of the extreme conditions, then this could qualify for additional services.

If at any time it is considered that the above items or other items should be more frequently serviced due to the type of operation or before a long trip, discuss the situation with the service manager of your GMH Dealer.

Extreme Corrosive Conditions

In addition to the foregoing, vehicles used under conditions exposing them to corrosive materials such as boat launching, driving along beaches, driving on tracks through fertilized paddocks, etc. — must be thoroughly flushed with fresh water immediately after such use to remove any deposited corrosive material.

MAINTENANCE SCHEDULE

This schedule is based on Normal Operating Conditions.

If your vehicle operates in Extreme Conditions those items marked ★ will need servicing more frequently. Refer 'Vehicle Operating Conditions' in this section for details.

CHECK: This term where used below means to check and correct or replace as necessary.

ITEM	MAINTENANCE OPERATION Periodic maintenance should be performed at number of kilometers or months whichever comes first.	MAINTENANCE INTERVAL Number of Kilometers in Thousands	1	10	20	30	40	50	60	70	80	90	100
		Number of Months		6	12	18	24	30	36	42	48	54	60
	UNDERHOOD MAINTENANCE												
1	Clean battery terminals and check electrolyte level (where applicable).			×	×	×	×	×	×	×	×	×	×
2	**Check level of fluid** in brake master cylinder, windscreen **washer, radiator and automatic transaxle** ★			×	×	×	×	×	×	×	×	×	×
3	Check brake booster, check valve, hoses and connections.						×				×		
4	If equipped with air conditioning, check system hoses and connections for deterioration and leaks.				×		×		×		×		×
5	Change brake fluid.					×			×			×	
	UNDER VEHICLE MAINTENANCE												
6	Check brake, clutch, fuel and exhaust systems, for proper attachment, leaks, cracks, chafing, abrasion or other deterioration. ★			×	×	×	×	×	×	×	×	×	×
7	Check steering gear, linkage, steering rack boots, suspension parts and drive shafts for damaged, loose or missing parts. ★		×	×	×	×	×	×	×	×	×	×	×
8	Check level of fluid in manual transaxle. ★			×	×	×	×	×	×	×	×	×	×
	OUTSIDE AND INSIDE MAINTENANCE												
9	**Check tyre condition and adjust tyre pressures if necessary, including spare.**		×	×	×	×	×	×	×	×	×	×	×
10	Check disc brake pads for serviceability.			×	×	×	×	×	×	×	×	×	×
11	Check front and rear wheel bearing grease. ★						×				×		
12	Check rear brake drums and linings for serviceability. ★				×		×		×		×		×
13	Rotate wheels — front to rear.				×		×		×		×		×
14	Lubricate locks, hinges and hood latch.			×	×	×	×	×	×	×	×	×	×
15	Check seat belts, buckles, retractors, anchors and adjusters.				×		×		×		×		×
16	Check and adjust clutch pedal, brake pedal and handbrake stroke.			×	×	×	×	×	×	×	×	×	×
17	Check function of all lamps.		×	×	×	×	×	×	×	×	×	×	×

SEE OVER FOR CONTINUATION

ITEM	MAINTENANCE OPERATION Periodic maintenance should be performed at number of kilometers or months whichever comes first.	Number of Kilometers in Thousands	1	10	20	30	40	50	60	70	80	90	100
		Number of Months		6	12	18	24	30	36	42	48	54	60
	EMISSION CONTROL MAINTENANCE												
18	Adjust intake and exhaust valve clearances.		X		X		X		X		X		X
19	Check and adjust drive belts.		X		X		X		X		X		X
20	Check vacuum hoses fittings and connections.				X		X		X		X		X
21	Replace P.C.V. valve.						X				X		
22	Check ventilation hoses.						X				X		
23	Check vapour lines (Hoses, connections, etc.).						X				X		
24	Change engine oil and filter.	★		X	X	X	X	X	X	X	X	X	X
25	Check cooling system hoses and connections.				X		X		X		X		X
26	Replace coolant.				X		X		X		X		X
27	Check choke mechanism.				X		X		X		X		X
28	Replace air cleaner element.	★					X				X		
29	Check fuel lines (Hoses, piping, connections, etc.)						X				X		
30	Replace fuel filter.						X				X		
31	Replace spark plugs.	★			X		X		X		X		X
32	Check ignition wiring.						X				X		
33	Check ignition timing.				X		X		X		X		X
34	Check E.G.R. control system (Auto. Models)				X		X		X		X		X
35	Check and adjust idle R.P.M.		X		X		X		X		X		X
36	Replace air induction valve filter.						X				X		
37	Check air induction system hoses.						X				X		
38	Check automatic temperature control air cleaner.				X		X		X		X		X

NOTE: • To comply with emission control regulations, ITEMS 18 to 38 inclusive must be carried out at specified intervals.
• Spark plugs may require more frequent maintenance when operating conditions and/or fuel used causes fouling.

Instructions for Emission Control Maintenance Services

These scheduled maintenance services should be performed at the designated service intervals in order to ensure good emission control performance and good engine performance in your new ASTRA.

THE FIRST 1,000 km SERVICE IS ONE OF THE MOST IMPORTANT SERVICES REQUIRED TO ENSURE THE MAXIMUM EMISSION CONTROL PERFORMANCE AND OPTIMUM ENGINE CONDITION OF YOUR ASTRA.

It is also important that emission control components be replaced at the designated time or odometer reading. If frequently used under extreme operating conditions (as described earlier in Section 6B) some components might require additional maintenance.

If maintenance service is required, or if your car exhibits malfunctions, it is recommended that you have the systems checked and tuned by your GMH dealer.

A factory service manual — The one GMH dealer technicians use — is available from your nearest GMH dealer.

Maintenance instructions for items Nos. 18 to 36 shown on the MAINTENANCE SCHEDULE:

(18) ADJUST INTAKE AND EXHAUST VALVE CLEARANCES.

Proper adjustments of the valve clearance is essential to exhaust emission control. Incorrect adjustment may cause valve noise or unstable idling.

(19) CHECK AND ADJUST DRIVE BELTS.

Check drive belts for wear, fraying or cracking and proper tension.

Replace the drive belts if found damaged.

(20) CHECK VACUUM FITTING HOSES AND CONNECTIONS.

Check hoses and connections for looseness or damage.

If a deteriorated or damaged hose is found, replace it.

(21) REPLACE P.C.V. VALVE.

The P.C.V. valve should be replaced with a new one every 40,000 km or 24 months, whichever comes first.

(22) CHECK VENTILATION HOSES.

The ventilation hoses should be blown out with air to make certain that they are clean, when the P.C.V. valve is replaced. Ensure that the flame arrester is securely inserted in the hose between the air cleaner and the rocker cover.

(23) CHECK VAPOUR LINES.

Check all fuel vapour lines and connections for condition, tightness etc. Replace any suspect hoses.

(24) CHANGE ENGINE OIL & FILTER.

Engine oil & filter should be changed every 10,000 km or 6 months, whichever comes first.

Under extreme operating conditions the oil and filter will need replacing more often.

(25) CHECK COOLING SYSTEM HOSES AND CONNECTIONS.

Check the cooling system hoses and connections for damage or looseness. If a leaky hose or connection is found, replace it.

(26) CHANGE ENGINE COOLANT.

The engine coolant should be checked for proper level.

Engine coolant including radiator corrosion inhibitor should be changed every 20,000 km or 12 months, whichever comes first.

Whenever the coolant is changed, the cooling system should be flushed and refilled.

(27) CHECK CHOKE MECHANISM (CHOKE PLATE AND LINKAGE).

Check for smooth operation of the choke plate and linkage.

In almost all cases, improper operation of these parts is caused by a sticking valve or binding linkage resulting from combustion residue.

(28) REPLACE AIR CLEANER ELEMENT (VISCOUS PAPER TYPE).

Under normal driving conditions, the carburettor air cleaner element should be replaced every 40,000 km or 24 months, whichever comes first.

However, driving the car in dusty areas will cause rapid clogging of the element. Consequently, the element may have to be replaced more frequently.

(29) CHECK FUEL LINES (HOSES, PIPING, CONNECTIONS, ETC.).

Check the fuel hoses, piping and connections for damage, leaks or looseness. Replace any damaged parts.

(30) REPLACE FUEL FILTER.

The fuel filter should be changed every 40,000 km or 24 months, whichever comes first.

(31) CHECK AND REPLACE SPARK PLUGS.

The spark plugs should be replaced with new ones every 20,000 km or 12 months, whichever comes first.

The spark plug gap should be checked whenever the engine idle is adjusted.

If the electrodes are badly worn or excessively fouled, replace the spark plugs.

Make sure that the spark plugs are replaced with those of the proper rating.

(32) CHECK IGNITION WIRING.

Check the ignition wiring for cracks of exterior insulation and for a proper fit on the distributor cap and spark plugs.

(33) CHECK IGNITION TIMING.

Ignition timing must be atjusted with the proper equipment.

WARNING.

(i) Semi-conductor devices cannot withstand high induction voltages (transients) therefore, always ensure that the ignition system is switched off and battery disconnected when working on electronic ignition systems.

(ii) Ensure test equipment does not emit dangerous transient voltages.

(iii) Do not open circuit, the high tension leads or circuit when testing for spark; use a test plug.

(iv) Only power timing lights with inductive pick ups should be used.

(34) CHECK EXHAUST GAS RECIRCULATION (E.G.R.) CONTROL SYSTEMS (Auto. models).

Check the movement of E.G.R. control valve during engine warming-up period. At the same time, remove and clean the E.G.R. control valve seat since it may be damaged with carbon deposits. Replace if necessary.

(35) CHECK AND ADJUST CARBURETTOR IDLE R.P.M.

Adjustment should be made with a tachometer to ensure accuracy. Satisfactory operation of the carburettor is of prime importance in the control of emissions.

(36) REPLACE AIR INDUCTION FILTER.

Under normal driving conditions the exhaust air induction system filter element must be changed every 40 000 km or 24 months, whichever comes first. Change more frequently if operated in dusty conditions.

(37) CHECK AIR INDUCTION SYSTEM HOSES.

Check the hoses and connections for damage, leaks or looseness. Replace any damaged parts.

(38) CHECK AUTOMATIC TEMPERATURE CONTROL AIR CLEANER.

Check vacuum hoses connected to air cleaner for loose connections, cracks or distortion.

Check A.T.C. system for correct operation.

(i) While engine is shut off and cold, inspect air control valve to make sure it opens properly.
If the cold air inlet opens, the valve is in the correct position.

(ii) Start engine and run it at idle. Immediately after starting the engine, check to ensure that cold air inlet is closed.

(iii) Make sure the cold air inlet opens gradually as the engine warms up.

SERVICE COUPON SYSTEM

The remainder of this section contains a separate coupon for each of the scheduled maintenance services recommended for vehicles operating under normal conditions. Printed on each coupon is a list of all the items requiring attention for that particular service. As each service is performed and the coupon removed, the following service coupon is readily visible to remind you when the next service is due.

What the Owner Should Do

When service, according to the time or distance interval, is due, the owner should present this Owner Handbook to a GMH Dealer as an authority to have the items listed attended to. Any additional services required should be noted on the front of the coupon and then signed by you as authorisation to carry out the service.

After the service is completed, the owner should see that the Validation Record is stamped and signed by the Dealer. This is important as it will not only assist in the determination of Warranty Claims, but enhance the value of the vehicle whenever resale is contemplated.

What The Servicing Dealer Has To Do

Your Service Dealer must attend to all items listed for the particular service and must see that the Validation Record is signed.

All operations listed on the Service Coupons should be carried out following the procedures set out in the appropriate current service literature.

Total Maintenance Programme

Service Coupons provided in this booklet range from the 1,000 km right through to the 100,000 km (60 month) service. The sequence of services is as follows:

NOTE: All the following services are to be performed at the specified Distance or Months, whichever occurs first.

- 1,000 km
- 10,000 km 6 months
- 20,000 km 12 months
- 30,000 km 18 months
- 40,000 km 24 months
- 50,000 km 30 months
- 60,000 km 36 months
- 70,000 km 42 months
- 80,000 km 48 months
- 90,000 km 54 months
- 100,000 km 60 months

The 1,000 kilometres service will be performed without cost for labour by the Selling Dealer.

This Service may be carried out by another GMH Dealer provided you have a letter of Introduction from the Selling Dealer. Your Dealer will supply the necessary letter of Introduction upon request.

1000 Kilometre Inspection and Adjustment

GMH QUALITY SERVICE & PARTS

This coupon should not be removed until the vehicle is presented for service.

Owner's Name Mr. Mrs. Miss .....

Address .....

Town & State ..... Postcode .....

Reg. No. ..... Model Name .....

V.I.N. ..... Eng. No. .....

Selling Dealer's Stamp & Signature .....

Date of Acquisition .....

This vehicle has been thoroughly checked in accordance with the schedule on the reverse side of this coupon.

Servicing Dealer's Stamp & Signature .....

Servicing Dealer .....

Town ..... State .....

Owner's Signature .....

This inspection & Adjustment will be carried out without charge to the owner except for any lubricants used.

This vehicle has been thoroughly checked in accordance with the 1,000 kilometre inspection and adjustment.

Dealer .....

Service Manager's Signature .....

Date ..... Odometer Reading .....

1000 Kilometre Inspection and Adjustment

1000 km INSPECTION & ADJUSTMENT

1. ☐ Check steering gear, linkage, steering rack boots, suspension parts and drive shafts for damaged loose or missing parts.
2. ☐ Check tyre condition and adjust tyre pressures if necessary.
3. ☐ Check function of all lamps.
4. ☐ Adjust intake and exhaust valve clearances.
5. ☐ Check and adjust drive belts.
6. ☐ Check and adjust carburettor idle rpm.
7. **ROAD TEST**

   ☐ Check vehicle on road for braking performance, steering operation, engine response. Correct and report abnormal conditions.

   ☐ Check for squeaks, rattles, wind noise and powertrain noise.

   ☐ Vehicles fitted with Automatic Transaxle — check shift pattern. Manual Transaxle — check gear shift operation and clutch control pedal height.

   ☐ Check park pawl operation (auto.).

   ☐ Check neutral start switch operation (auto.).

   ☐ Check steering wheel spoke position.

Additional Services Performed: .....

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

10,000 km or 6 Month SERVICE VALIDATION

10,000 km or 6 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 0.8 hrs to perform.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

OPERATIONS

1. ☐ Change engine oil and filter.
2. ☐ Check brake, clutch, fuel and exhaust systems for proper attachment, leaks, cracks, chafing, abrasion or other deterioration.
3. ☐ Check steering gear, linkage, steering rack boots, suspension parts, drive shafts for damaged, loose or missing parts.
4. ☐ Check tyre condition and adjust tyre pressures if necessary.
5. ☐ Check disc brake pads for serviceability.
6. ☐ Clean battery terminals and check electrolyte level where applicable.
7. ☐ Check level of fluid in brake master cylinder, windscreen washer, radiator and transaxle.
8. ☐ Check and adjust clutch pedal, brake pedal and handbrake strokes.
9. ☐ Check function of all lamps.
10. **ROAD TEST**
    - ☐ Check vehicle on road for braking performance, steering operation, engine response. Correct and report abnormal conditions.
    - ☐ Check for squeaks, rattles, wind noise and powertrain noise.
    - ☐ Vehicles fitted with Automatic Transaxle — check shift pattern. Manual Transaxle — check gear shift operation and clutch control pedal height.
    - ☐ Check park pawl operation (auto.).
    - ☐ Check neutral start switch operation (auto.).
    - ☐ Check steering wheel spoke position.

20,000 km or 12 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.9 hrs to perform.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

OPERATIONS

1. ☐ Adjust intake and exhaust valves.
2. ☐ Check drive belts.
3. ☐ Check vacuum hoses, fittings and connections.
4. ☐ Clean battery terminals and check electrolyte level where applicable.
5. ☐ Check level of fluid in brake master cylinder, windscreen washer, radiator and transaxle.
6. ☐ Check air-conditioner hoses and connections for deterioration and leaks. (If so equipped.)
7. ☐ Check cooling system hoses and connections.
8. ☐ Replace coolant.
9. ☐ Check choke mechanism.
10. ☐ Replace spark plugs.
11. ☐ Check E.G.R. control system (Auto models only).
12. ☐ Change engine oil and filter.
13. ☐ Check brake, clutch, fuel and exhaust systems for proper attachment, leaks, cracks, chafing, abrasion or other deterioration.
14. ☐ Check steering gear, linkage, steering rack boots, suspension parts, drive shafts for damaged, loose or missing parts.
15. ☐ Check tyre condition and adjust tyre pressure if necessary.
16. ☐ Check disc brake pads for serviceability.
17. ☐ Check rear brake drums and linings for serviceability.

SEE OVER FOR CONTINUATION

Additional Services Performed: .....

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

20,000 km or 12 Month SERVICE VALIDATION

18. ☐ Rotate wheels — front to rear.
19. ☐ Lubricate locks, hinges and hood latch.
20. ☐ Check seat belts, buckles, retractors, anchors and adjusters.
21. ☐ Check and adjust clutch pedal, brake pedal and handbrake strokes.
22. ☐ Check function of all lamps.
23. ☐ Adjust ignition timing.
24. ☐ Check and adjust idle R.P.M.
25. ☐ Check automatic temperature control air cleaner.
26. **ROAD TEST**

    ☐ Check vehicle on road for braking performance, steering operation, engine response. Correct and report abnormal conditions.

    ☐ Check for squeaks, rattles, wind noise and powertrain noise.

    ☐ Vehicles fitted with Automatic Transaxle — check shift pattern. Manual Transaxle — check gear shift operation and clutch control pedal height.

    ☐ Check park pawl operation (auto.).

    ☐ Check neutral start switch operation (auto.).

    ☐ Check steering wheel spoke position.

30,000 km or 18 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.0 hrs to perform.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

OPERATIONS

1. ☐ Change engine oil and filter.
2. ☐ Check brake, clutch, fuel and exhaust systems for proper attachment, leaks, cracks, chafing, abrasion or other deterioration.
3. ☐ Check steering gear, linkage, steering rack boots, suspension parts, drive shafts for damaged, loose or missing parts.
4. ☐ Check tyre condition and adjust tyre pressures if necessary.
5. ☐ Check disc brake pads for serviceability.
6. ☐ Change brake fluid.
7. ☐ Clean battery terminals and check electrolyte level where applicable.
8. ☐ Check level of fluid in brake master cylinder, windscreen washer, radiator and transaxle.
9. ☐ Check and adjust clutch pedal, brake pedal and handbrake strokes.
10. ☐ Check function of all lamps.
11. **ROAD TEST**
    - ☐ Check vehicle on road for braking performance, steering operation, engine response. Correct and report abnormal conditions.
    - ☐ Check for squeaks, rattles, wind noise and powertrain noise.
    - ☐ Vehicles fitted with Automatic Transaxle — check shift pattern. Manual Transaxle — check gear shift operation and clutch control pedal height.
    - ☐ Check park pawl operation (auto.).
    - ☐ Check neutral start switch operation (auto.).
    - ☐ Check steering wheel spoke position.

Additional Services Performed: .....

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

30,000 km or 18 Month SERVICE VALIDATION

40,000 km or 24 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 2.4 hrs to perform.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

OPERATIONS

1. ☐ Adjust intake and exhaust valve clearances.
2. ☐ Check drive belts.
3. ☐ Check vacuum hoses, fittings and connections.
4. ☐ Replace P.C.V. valve.
5. ☐ Check ventilation hoses.
6. ☐ Check automatic temperature control air cleaner.
7. ☐ Check vapour lines, hoses and connections.
8. ☐ Replace coolant.
9. ☐ Check coolant system hoses and connections.
10. ☐ Check choke mechanism.
11. ☐ Replace air cleaner element.
12. ☐ Check fuel lines. (Hoses, piping, connections, etc.).
13. ☐ Replace fuel filter.
14. ☐ Replace spark plugs.
15. ☐ Check E.G.R. control system (Auto models only).
16. ☐ Check ignition wiring.
17. ☐ Clean battery terminals and check electrolyte level where applicable.
18. ☐ Check level of fluid in brake master cylinder, windscreen washer, radiator and transaxle.

SEE OVER FOR CONTINUATION

40,000 km or 24 Month SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

Additional Services Performed: .....

19. ☐ Check brake booster, check valve, hoses and connections.
20. ☐ Check air-conditioner hoses and connections for deterioration and leaks. (If so equipped.)
21. ☐ Check brake, clutch, fuel and exhaust systems for proper attachment, leaks, cracks, chafing, abrasion or other deterioration.
22. ☐ Check steering gear, linkage, steering rack boots, suspension parts, drive shafts for damaged, loose or missing parts.
23. ☐ Change engine oil and filter.
24. ☐ Check tyre condition and adjust tyre pressures if necessary.
25. ☐ Check disc brake pads for serviceability.
26. ☐ Check front and rear wheel bearing grease.
27. ☐ Check rear brake drums and linings for serviceability.
28. ☐ Rotate wheels, front to rear.
29. ☐ Lubricate locks, hinges and hood latch.
30. ☐ Check seat belts, buckles, retractors, anchors and adjusters.
31. ☐ Check and adjust clutch pedal, brake pedal and handbrake stroke.
32. ☐ Check function of all lamps.
33. ☐ Adjust ignition timing.
34. ☐ Check and adjust idle R.P.M.
35. ☐ Replace air induction valve filter.
36. ☐ Check air induction system hoses.
37. **ROAD TEST**

    ☐ Check vehicle on road for braking performance, steering operation, engine response. Correct and report abnormal conditions.

    ☐ Check for squeaks, rattles, wind noise and powertrain noise.

    ☐ Vehicles fitted with Automatic Transaxle — check shift pattern. Manual Transaxle — check gear shift operation and clutch control pedal height.

    ☐ Check park pawl operation (auto.).

    ☐ Check neutral start switch operation (auto.).

    ☐ Check steering wheel spoke position.

50,000 km or 30 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 0.8 hrs to perform.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

.....

.....

.....

.....

Signature ..... Date .....

OPERATIONS

1. ☐ Change engine oil and filter.
2. ☐ Check brake, clutch, fuel and exhaust systems for proper attachment, leaks, cracks, chafing, abrasion or other deterioration.
3. ☐ Check steering gear, linkage, steering rack boots, suspension parts, drive shafts for damaged, loose or missing parts.
4. ☐ Check tyre condition and adjust tyre pressures if necessary.
5. ☐ Check disc brake pads for serviceability.
6. ☐ Clean battery terminals and check electrolyte level where applicable.
7. ☐ Check level of fluid in brake master cylinder, windscreen washer, radiator and transaxle.
8. ☐ Check and adjust clutch pedal, brake pedal and handbrake strokes.
9. ☐ Check function of all lamps.
10. **ROAD TEST**
    - ☐ Check vehicle on road for braking performance, steering operation, engine response. Correct and report abnormal conditions.
    - ☐ Check for squeaks, rattles, wind noise and powertrain noise.
    - ☐ Vehicles fitted with Automatic Transaxle — check shift pattern. Manual Transaxle — check gear shift operation and clutch control pedal height.
    - ☐ Check park pawl operation (auto.).
    - ☐ Check neutral start switch operation (auto.).
    - ☐ Check steering wheel spoke position.

Additional Services Performed: .....

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

50,000 km or 30 Month SERVICE VALIDATION

60,000 km or 36 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 2.1 hrs to perform.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

OPERATIONS

1. ☐ Adjust intake and exhaust valves.
2. ☐ Check drive belts.
3. ☐ Check vacuum hoses, fittings and connections.
4. ☐ Clean battery terminals and check electrolyte level where applicable.
5. ☐ Check level of fluid in brake master cylinder, windscreen washer, radiator and transaxle.
6. ☐ Check air-conditioner hoses and connections for deterioration and leaks. (If so equipped.)
7. ☐ Check cooling system hoses and connections.
8. ☐ Replace Coolant.
9. ☐ Check choke mechanism.
10. ☐ Replace spark plugs.
11. ☐ Check E.G.R. control system (Auto models only).
12. ☐ Change engine oil and filter.
13. ☐ Check brake, clutch, fuel and exhaust systems for proper attachment, leaks, cracks, chafing, abrasion or other deterioration.
14. ☐ Check steering gear, linkage, steering rack boots, suspension parts, drive shafts for damaged, loose or missing parts.
15. ☐ Check tyre condition and adjust tyre pressures if necessary.
16. ☐ Check disc brake pads for serviceability.

SEE OVER FOR CONTINUATION

Additional Services Performed: .....

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

60,000 km or 36 Month SERVICE VALIDATION

17. ☐ Check rear brake drums and linings for serviceability.
18. ☐ Change brake fluid.
19. ☐ Rotate wheels — front to rear.
20. ☐ Lubricate locks, hinges and hood latch.
21. ☐ Check seat belts, buckles, retractors, anchors and adjusters.
22. ☐ Check and adjust clutch pedal, brake pedal and handbrake strokes.
23. ☐ Check function of all lamps.
24. ☐ Adjust ignition timing.
25. ☐ Check and adjust idle R.P.M.
26. ☐ Check automatic temperature control air cleaner.
27. **ROAD TEST**

    ☐ Check vehicle on road for braking performance, steering operation, engine response. Correct and report abnormal conditions.

    ☐ Check for squeaks, rattles, wind noise and powertrain noise.

    ☐ Vehicles fitted with Automatic Transaxle — check shift pattern. Manual Transaxle — check gear shift operation and clutch control pedal height.

    ☐ Check park pawl operation (auto.).

    ☐ Check neutral start switch operation (auto.).

    ☐ Check steering wheel spoke position.

70,000 km or 42 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 0.8 hrs to perform.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

OPERATIONS

1. ☐ Change engine oil and filter.
2. ☐ Check brake, clutch, fuel and exhaust systems for proper attachment, leaks, cracks, chafing, abrasion or other deterioration.
3. ☐ Check steering gear, linkage, steering rack boots, suspension parts, drive shafts for damaged, loose or missing parts.
4. ☐ Check tyre condition and adjust tyre pressures if necessary.
5. ☐ Check disc brake pads for serviceability.
6. ☐ Clean battery terminals and check electrolyte level where applicable.
7. ☐ Check level of fluid in brake master cylinder, windscreen washer, radiator and transaxle.
8. ☐ Check and adjust clutch pedal, brake pedal and handbrake strokes.
9. ☐ Check function of all lamps.
10. **ROAD TEST**
    - ☐ Check vehicle on road for braking performance, steering operation, engine response. Correct and report abnormal conditions.
    - ☐ Check for squeaks, rattles, wind noise and powertrain noise.
    - ☐ Vehicles fitted with Automatic Transaxle — check shift pattern. Manual Transaxle — check gear shift operation and clutch control pedal height.
    - ☐ Check park pawl operation (auto.).
    - ☐ Check neutral start switch operation (auto.).
    - ☐ Check steering wheel spoke position.

Additional Services Performed: .....

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

70,000 km or 42 Month SERVICE VALIDATION

80,000 km or 48 Months Service Coupon

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 2.4 hrs to perform.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

OPERATIONS

1. ☐ Adjust intake and exhaust valve clearances.
2. ☐ Check drive belts.
3. ☐ Check vacuum hoses fittings and connections.
4. ☐ Replace P.C.V. valve.
5. ☐ Check ventilation hoses.
6. ☐ Check automatic temperature control air cleaner.
7. ☐ Check vapour lines, hoses and connections.
8. ☐ Replace coolant.
9. ☐ Check cooling system hoses and connections.
10. ☐ Check choke mechanism.
11. ☐ Replace air cleaner element.
12. ☐ Check fuel lines. (Hoses, piping, connections, etc.).
13. ☐ Replace fuel filter.
14. ☐ Replace spark plugs.
15. ☐ Check E.G.R. control system (Auto models only).
16. ☐ Check ignition wiring.
17. ☐ Clean battery terminals and check electrolyte level where applicable.
18. ☐ Check level of fluid in brake master cylinder, windscreen washer, radiator and transaxle.

SEE OVER FOR CONTINUATION

80,000 km or 48 Month SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

Additional Services Performed:

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19. ☐ Check brake booster, check valve, hoses and connections.
20. ☐ Check air-conditioner hoses and connections for deterioration and leaks. (If so equipped.)
21. ☐ Check brake, clutch, fuel and exhaust systems for proper attachment, leaks, cracks, chafing, abrasion or other deterioration.
22. ☐ Check steering gear, linkage, steering rack boots, suspension parts, drive shafts for damaged loose or missing parts.
23. ☐ Change engine oil and filter.
24. ☐ Check tyre condition and adjust tyre pressures if necessary.
25. ☐ Check disc brake pads for serviceability.
26. ☐ Check front and rear wheel bearing grease.
27. ☐ Check rear brake drums and linings for serviceability.
28. ☐ Rotate wheels. Front to rear.
29. ☐ Lubricate locks, hinges and hood latch.
30. ☐ Check seat belts, buckles, retractors, anchors and adjusters.
31. ☐ Check and adjust clutch pedal, brake pedal and handbrake stroke.
32. ☐ Check function of all lamps.
33. ☐ Adjust ignition timing.
34. ☐ Check and adjust idle R.P.M.
35. ☐ Replace air induction valve filter.
36. ☐ Check air induction system hoses.
37. **ROAD TEST**

☐ Check vehicle on road for braking performance, steering operation, engine response. Correct and report abnormal conditions.

☐ Check for squeaks, rattles, wind noise and powertrain noise.

☐ Vehicles fitted with Automatic Transaxle — check shift pattern. Manual Transaxle — check gear shift operation and clutch control pedal height.

☐ Check park pawl operation (auto.).

☐ Check neutral start switch operation (auto.).

☐ Check steering wheel spoke position.

90,000 km or 54 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.0 hrs to perform.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

OPERATIONS

1. ☐ Change engine oil and filter.
2. ☐ Check brake, clutch, fuel and exhaust systems for proper attachment, leaks, cracks, chafing, abrasion or other deterioration.
3. ☐ Check steering gear, linkage, steering rack boots, suspension parts, drive shafts for damaged, loose or missing parts.
4. ☐ Check tyre condition and adjust tyre pressures if necessary.
5. ☐ Check disc brake pads for serviceability.
6. ☐ Change brake fluid.
7. ☐ Clean battery terminals and check electrolyte level where applicable.
8. ☐ Check level of fluid in brake master cylinder, windscreen washer, radiator and transaxle.
9. ☐ Check and adjust clutch pedal, brake pedal and handbrake strokes.
10. ☐ Check function of all lamps.
11. **ROAD TEST**
    - ☐ Check vehicle on road for braking performance, steering operation, engine response. Correct and report abnormal conditions.
    - ☐ Check for squeaks, rattles, wind noise and powertrain noise.
    - ☐ Vehicles fitted with Automatic Transaxle — check shift pattern. Manual Transaxle — check gear shift operation and clutch control pedal height.
    - ☐ Check park pawl operation (auto.).
    - ☐ Check neutral start switch operation (auto.).
    - ☐ Check steering wheel spoke position.

Additional Services Performed: .....

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

90,000 km or 54 Month SERVICE VALIDATION

100,000 km or 60 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.9 hrs to perform.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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.....

.....

Signature ..... Date .....

OPERATIONS

1. ☐ Adjust intake and exhaust valves.
2. ☐ Check drive belts.
3. ☐ Check vacuum hoses, fittings and connections.
4. ☐ Clean battery terminals and check electrolyte level where applicable.
5. ☐ Check level of fluid in brake master cylinder, windscreen washer, radiator and transaxle.
6. ☐ Check air-conditioner hoses and connections for deterioration and leaks. (If so equipped.)
7. ☐ Check cooling system hoses and connections.
8. ☐ Replace coolant.
9. ☐ Check choke mechanism.
10. ☐ Replace spark plugs.
11. ☐ Check E.G.R. control system (Auto. models only)
12. ☐ Change engine oil and filter.
13. ☐ Check brake, clutch, fuel and exhaust systems for proper attachment, leaks, cracks, chafing, abrasion or other deterioration.
14. ☐ Check steering gear, linkage, steering rack boots, suspension parts, drive shafts for damaged, loose or missing parts.
15. ☐ Check tyre condition and adjust tyre pressures if necessary.
16. ☐ Check disc brake pads for serviceability.

SEE OVER FOR CONTINUATION

Additional Services Performed: .....

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

100,000 km or 60 Month SERVICE VALIDATION

17. ☐ Check rear brake drums and linings for serviceability.
18. ☐ Rotate wheels — front to rear.
19. ☐ Lubricate locks, hinges and hood latch.
20. ☐ Check seat belts, buckles, retractors, anchors and adjusters.
21. ☐ Check and adjust clutch pedal, brake pedal and handbrake strokes.
22. ☐ Check function of all lamps.
23. ☐ Adjust ignition timing.
24. ☐ Check and adjust idle R.P.M.
25. ☐ Check automatic temperature control air cleaner.
26. **ROAD TEST**

    ☐ Check vehicle on road for braking performance, steering operation, engine response. Correct and report abnormal conditions.

    ☐ Check for squeaks, rattles, wind noise and powertrain noise.

    ☐ Vehicles fitted with Automatic Transaxle — check shift pattern. Manual Transaxle — check gear shift operation and clutch control pedal height.

    ☐ Check park pawl operation (auto.).

    ☐ Check neutral start switch operation (auto.).

    ☐ Check steering wheel spoke position.

To ensure continued interest in your vehicle, GMH requests that owners who change their name or address and subsequent owners who purchase the vehicle fill in and mail one of the attached notices. Please forward to the address shown on the reverse side of the notice.

Notice of Name/Address Ownership Change

NAME/ADDRESS CHANGE ☐ SUBSEQUENT OWNER ☐
PLEASE TICK ☑ APPROPRIATE SQUARE

Owner's Name Mr. / Mrs. / Miss .....

Address .....

Town .....

State ..... Post Code .....

Registration No. .....

Vehicle Identification Number (V.I.N.) .....

(Refer Specifications Section of this Manual for location of V.I.N.)

Notice of Name/Address Ownership Change

NAME/ADDRESS CHANGE ☐ SUBSEQUENT OWNER ☐
PLEASE TICK ☑ APPROPRIATE SQUARE

Owner's Name Mr. / Mrs. / Miss .....

Address .....

Town .....

State ..... Post Code .....

Registration No. .....

Vehicle Identification Number (V.I.N.) .....

(Refer Specifications Section of this Manual for location of V.I.N.)

Place in an envelope and mail to:

The Manager — Warranty Administration,
Service Department,
General Motors-Holden's Sales Pty. Limited,
Box 548D, G.P.O.,
Melbourne,
Victoria, 3001.

Place in an envelope and mail to:

The Manager — Warranty Administration,
Service Department,
General Motors-Holden's Sales Pty. Limited,
Box 548D, G.P.O.,
Melbourne,
Victoria, 3001.

To ensure continued interest in your vehicle, GMH requests that owners who change their name or address and subsequent owners who purchase the vehicle fill in and mail one of the attached notices. Please forward to the address shown on the reverse side of the notice.

Notice of Name/Address Ownership Change

NAME/ADDRESS CHANGE ☐ SUBSEQUENT OWNER ☐
PLEASE TICK ☑ APPROPRIATE SQUARE

Owner's Name Mr. / Mrs. / Miss .....

Address .....

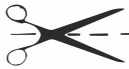
Town .....

State ..... Post Code .....

Registration No. .....

Vehicle Identification Number (V.I.N.) .....

(Refer Specifications Section of this Manual for location of V.I.N.)



Notice of Name/Address Ownership Change

NAME/ADDRESS CHANGE ☐ SUBSEQUENT OWNER ☐
PLEASE TICK ☑ APPROPRIATE SQUARE

Owner's Name Mr. / Mrs. / Miss .....

Address .....

Town .....

State ..... Post Code .....

Registration No. .....

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The Manager — Warranty Administration,
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Service Department,
General Motors-Holden's Sales Pty. Limited,
Box 548D, G.P.O.,
Melbourne,
Victoria, 3001.

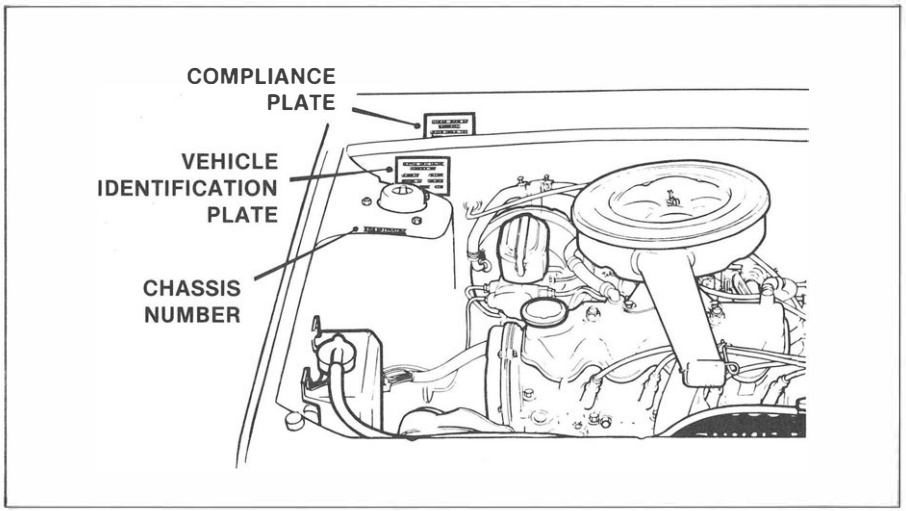
SECTION 7 SPECIFICATIONS AND EMISSION CONTROL SYSTEMS

SPECIFICATIONS

These specifications are given here for information only. Before using them, see the Cautions and other instructions throughout this manual — the index may help you locate such items. For more information, see the service manual covering the chassis or body part in question. If in doubt about any item ask your GMH Dealer.

IDENTIFICATION NUMBERS AND PLATES

There are several identification numbers and plates on your vehicle that you should be familiar with. The illustration shows the location of most of these items.



Vehicle Identification Plate

The Vehicle Identification Plate shows the vehicle type, serial number, body number, engine number, paint code and the built date.

BUILT DATE (DEFINITION)

This is the calendar month and the year in which the body shell and power train sub-assemblies are conjoined and the vehicle is driven or moved from the production line.

Example: BUILT DATE MAR 86.

Compliance Plate

The compliance plate is located on the engine bulkhead in the engine compartment near the top on the drivers side.

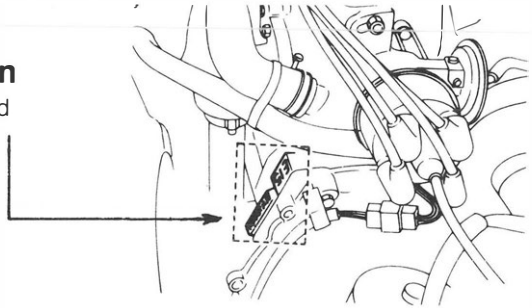
The plate shows the vehicle series, model, style, month and year of production, vehicle serial number, approved seating capacity and the Australian Design Rules (ADR's) with which the vehicle complies.

Vehicle Serial Number (Chassis Number)

The vehicle serial number is stamped on the top of the strut tower in the engine compartment, drivers side.

Engine Serial No. Location

The engine serial number is stamped on the cylinder block as shown.



ENGINE DATA

Model		E16S
Type		OHC
Cylinder Arrangement		4 cylinder in-line
Bore × Stroke	mm (in)	76.0 × 88.0 (2.992 × 3.460)
Displacement	cm^3(cu in)	1597 (97.45)
Compression ratio		9.4:1
Firing order		1-3-4-2
Idling speed	rpm	
M/T		800
A/T in "D" position		650
Ignition timing	degree at idle*	
M/T		5° ATDC
A/T in "D" position		5° TDC
Spark plugs		(0.018 to 0.022)
NGK		
Spark plug gap	mm (in)	1.05 (0.041)
Valve clearance (Hot)	mm (in)	
Intake		0.28 (0.011)
Exhaust		0.28 (0.011)
Alternator belt size	mm (in)	
Width × Length		10.5 × 1003 (0.41 × 39.5)

*Distributor vacuum hose disconnected and plugged.

TRANSMISSION

TYPE	MANUAL 5 SPEED TRANSAXLE RS5F30A	AUTOMATIC 3 SPEED TRANSAXLE RL3F01A
GEAR RATIO		
1st	3.063	2.826
2nd	1.826	1.543
3rd	1.207	1.000
4th	0.902	—
5th	0.733	—
REV.	3.417	2.364
FINAL DRIVE RATIO	3.895	3.476

RECOMMENDED LUBRICANTS AND FLUIDS

Item	Specifications	Remarks
Engine Oil	API SE	For further details, refer to the recommended SAE viscosity chart in Section 6A.
Gear oil Transaxle and final drive gear	APIL GL-4	"
Automatic transaxle fluid	Type DEXRON II	—
Multi-purpose grease (Wheel Bearings)	NLGI No. 2	Lithium soap base
Brake fluid	GMH Part No. 92026651	
Corrosion Inhibitor	GMH Part No. M39288 or M39338	(1 litre container) (4 litre container)

APPROXIMATE REFILL CAPACITIES

		Litre
Fuel tank		50
Coolant		
(includes heater)	MT	4.7
	A/T	5.3
Engine		
With oil filter change		3.9
Without oil filter change		3.4
Transaxle and Final drive gear	M/T	2.7
	A/T	6.0

RADIATOR CAP

Pressure Rating — 88 kPa (13 psi)

NOMINAL DIMENSIONS

	mm (in)
Overall length	3,960 (155.9)
Overall width	1,620 (63.8)
Overall height	1,390 (54.7)
Ground clearance	170 (6.7)
Front tread	1,395 (54.9)
Rear tread	1,375 (54.1)
Wheelbase	2,415 (95.1)
Turning circle (wall to wall) m (ft)	10.2 (33.5)

NOMINAL WEIGHTS

Model	Curb Weight kg
SL/X	912
SL/E	922

NOTE: The curb weight represents an unloaded vehicle, without options and a tank full of fuel.

The following options when fitted cause the curb weight to increase by the specified amounts:—

Automatic Transmission	+ 20 kg (SL/X & SL/E)
Air Conditioning	+ 20 kg (SL/E ONLY)

WHEEL AND TYRE

Road Wheel	Steel 4½ JJ × 13
Tyre Tubeless Steel Radial	P165/75SR13
Tyre Pressure	Refer to tyre placard located in glove box. Also refer Section 6A.
Wheel nut tightening torque N.m. (ft-lb)	78 to 98 (58 to 72)

BULB

	Wattage (12 volt)
Headlight (Halogen, semi-sealed beam)	
High/Low	60/55
Front turn signal light	21
Front combination light	
Turn signal	5
Clearance	5
Rear combination light	
Turn signal	21
Stop/Tail	21/5
Back-up	21
Licence plate light	5
Interior light	10
Luggage compartment light	5

EMISSION CONTROL SYSTEMS

Your vehicle is fitted with emission control systems which are designed to reduce the amount of hydrocarbons (HC), carbon monoxide (CO), and oxides of nitrogen (NOx) that are emitted from the engine and fuel system into the atmosphere. Hydrocarbons and oxides of nitrogen, when exposed to sunlight under certain conditions, produce photochemical smog. In addition, carbon monoxide is toxic when it becomes highly concentrated in the air.

The three major emission control systems fitted to your vehicle are:

1. **EVAPORATIVE EMISSION CONTROL SYSTEM**
   Designed to prevent the escape of fuel vapours from the fuel system and recycle them in the normal combustion process.
2. **CRANKCASE EMISSION CONTROL SYSTEM**
   This system prevents blow-by gases from escaping into the atmosphere and recycles them through the combustion process.
3. **EXHAUST EMISSION CONTROL SYSTEM**
   The various components of this system viz; carburettor, throttle opener control system and spark timing control system have been designed to limit HC, CO and NOx emissions in the engine exhaust gas.

For detailed information on the operation, servicing and repair procedures for these systems, refer to the relevant service manual for your vehicle.

OWNER RESPONSIBILITY

Your vehicle's emission control systems have been designed to meet the requirements of Australian Design Rules and State Regulations.

To ensure that these components achieve their purpose of controlling the emission of pollutants to the atmosphere, the engine or exhaust system of your vehicle must **not** be modified in any way. Any departure from the manufacturer's design specifications may increase the emissions or otherwise defeat the intent of the regulations.

IMPORTANT: ANY PERSON WHO REMOVES, MODIFIES OR OTHERWISE RENDERS INEFFECTIVE ANY EMISSION CONTROL COMPONENTS FITTED TO A VEHICLE WILL BE CONTRAVENING THE RELEVANT REGULATIONS AND BE GUILTY OF AN OFFENCE UNDER THE REGULATIONS. ANY PERSON WHO OWNS AND/OR OPERATES SUCH A VEHICLE COULD ALSO BE GUILTY OF AN OFFENCE UNDER THE REGULATIONS.

MAINTENANCE REQUIREMENTS

To ensure continuing compliance with the regulations it will be necessary for you to maintain your vehicle's emission control systems in accordance with the instructions given in the GMH Maintenance Plan (refer Section 6B) and the relevant Service Manuals.

It is recommended that the necessary servicing be performed by an authorised GMH Dealer who has the specialised servicing equipment and trained personnel available to ensure that the adjustments and services specified are carried out.

SERVICE REPLACEMENT PARTS

To ensure that your vehicle complies with the regulations it is imperative that any replacement parts used for maintenance services or for the repair of the emission control systems be new GM parts. Use of replacement parts other than genuine GM parts may impair the effectiveness of such systems.

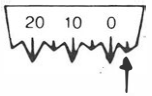
EMISSION CONTROL INFORMATION LABEL

This label is affixed to the underside of the engine hood and provides all relevant specifications to correctly tune the engine in your vehicle.

VEHICLE EMISSION CONTROL INFORMATION

THIS VEHICLE CONFORMS TO AUSTRALIAN DESIGN RULE 37 VEHICLE EMISSION CONTROL

- ENGINE ..... FAMILY: E 16 S-N12 ..... CODE: E 16 S-N12-M
- EXHAUST EMISSION CONTROL TYPE ..... EGR + AIV + OC
- ENGINE TUNE UP SPECIFICATION AND ADJUSTMENT (LIGHTS AND ACCESSORIES OFF)



TIMING MARK

- IDLE SPEED.....800 R.P.M. IN NEUTRAL
- IGNITION TIMING..... 5° A.T.D.C. (WITH VACUUM HOSE DISCONNECTED)
- SPARK PLUG GAP ..... 105 mm

NOTE: IDLE MIXTURE SCREW IS PRESET AND SEALED

GENERAL MOTORS-HOLDEN'S LIMITED

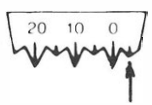
14805 V9818 E 16S M/T

Manual Transmission

VEHICLE EMISSION CONTROL INFORMATION

THIS VEHICLE CONFORMS TO AUSTRALIAN DESIGN RULE 37 VEHICLE EMISSION CONTROL

- ENGINE .....FAMILY: E 16 S-N12 .....CODE: E 16 S-N12-A
- EXHAUST EMISSION CONTROL TYPE .....EGR + AIV + OC
- ENGINE TUNE UP SPECIFICATION AND ADJUSTMENT (LIGHTS AND ACCESSORIES OFF)



TIMING MARK

- IDLE SPEED.....650 R.P.M. IN 'D' RANGE
- IGNITION TIMING..... 5° A.T.D.C. (WITH VACUUM HOSE DISCONNECTED)
- SPARK PLUG GAP ..... 105 mm

NOTE: IDLE MIXTURE SCREW IS PRESET AND SEALED

GENERAL MOTORS-HOLDEN'S LIMITED

14805 V9818 E 16S A/T

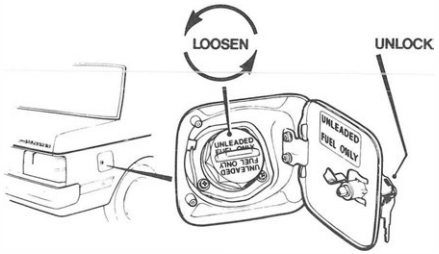
Automatic Transmission

SECTION 8 SERVICE STATION INFORMATION, INDEX, ACCIDENT PROCEDURES

FUEL FILLER FLAP

Situated on the right rear body side panel. Use the key to unlock.

The fuel filler flap may also be opened by operating the remote release lever situated at floor level on the outer side of the drivers seat.



FUEL FILLER CAP

This is a screw type situated under the fuel filler flap.

NOTE: The cap has a built-in ratchet which prevents the cap from being overtightened. When tightening past the built in tension the cap will "bump" around. This is normal.

FUEL RECOMMENDATION

To reduce the exhaust pollutants in the atmosphere, your vehicle has been designed to operate on a good clean UNLEADED FUEL of 91 octane rating (Research Octane Number), as indicated by the label on the inside of the fuel filler door.

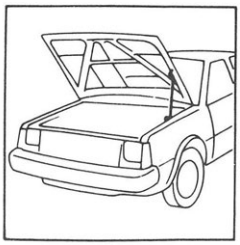
The use of any other fuel will seriously damage the catalytic converter and may void your Warranty.

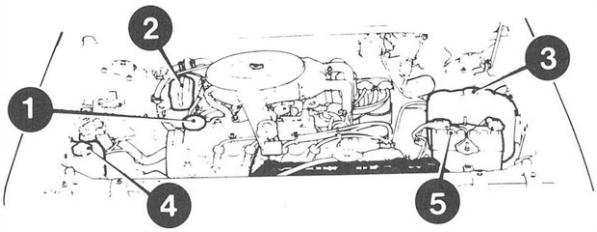
To ensure that the correct fuel is used, your vehicle has been fitted with a fuel filler nozzle restrictor. This only allows the narrow, unleaded fuel filler nozzle to fill the tank. The leaded fuel filler nozzle is wider, and therefore cannot be used.

CAUTION: Petrol is extremely flammable and highly explosive under certain conditions. Always stop the engine and do not smoke or allow open flames or sparks near the vehicle when refuelling. If petrol fumes are noticed while driving, the cause should be determined and corrected without delay.

HOOD RELEASE

Open and support the hood as shown.





When refuelling, check the following.

1. **ENGINE OIL.** The dipstick is located on the engine side facing the front of the vehicle. Check the oil level before operating the engine, or as the last step in a fuel stop. Maintain the oil level between 'H' and 'L' on the dipstick. For important information on engine oil and viscosity grades refer to Section 6A.
2. **BRAKE FLUID.** Check brake fluid reservoir level. Use only recommended fluid as shown in Specifications, Section 7. Before topping up, reference should be made to item on Brake Fluid Level in Section 6A.
3. **WINDSHIELD AND REAR WINDOW WASHER.** Check the washer reservoir fluid levels regularly. Use a washer fluid additive such as Optikleen. Don't use radiator anti-freeze in the washer, it may cause paint damage.
4. **ENGINE COOLANT.** Check the fluid level in the coolant recovery reservoir. Check the fluid level in the radiator at least weekly, preferably when the engine is cold. (For details on filling procedures and recommended coolant refer to "Engine Cooling System" in Section 6A of this handbook.)
5. **BATTERY ELECTROLYTE.** Maintain level at recommended height by adding distilled water.

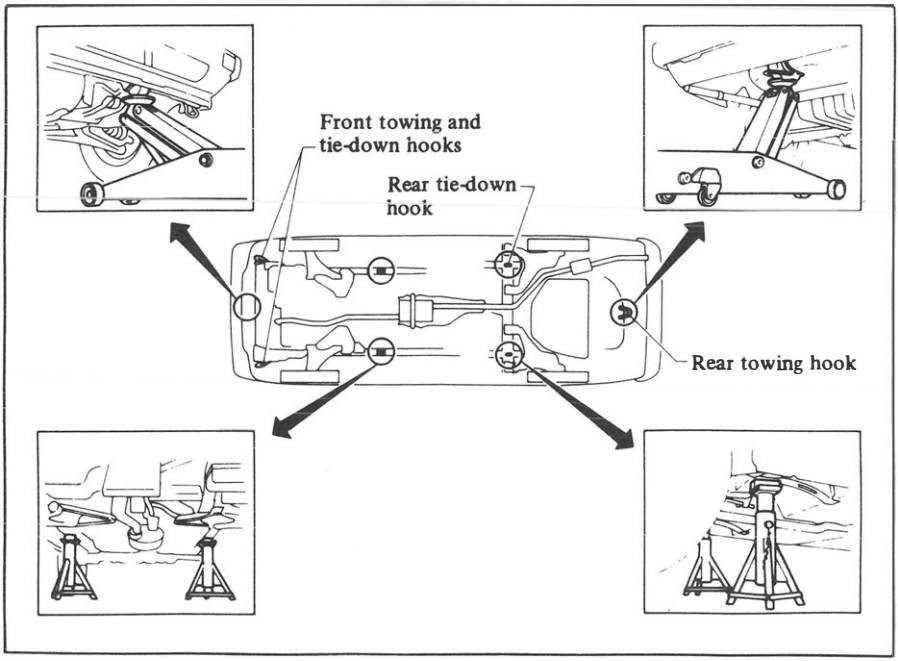
TYRE PRESSURES

Check tyre pressures at least weekly (including the spare). Keep them inflated to the pressures shown on the Tyre Placard in the glove box.

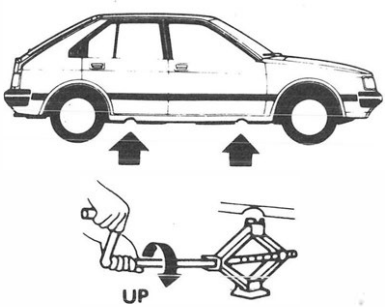
IMPORTANT: ALLOWANCE MUST BE MADE FOR INFLATION PRESSURES IF CHECKING TYRES 'HOT'. REFER TO SECTION 6A FOR DETAILS.

LIFTING POINTS

GARAGE JACK AND SAFETY STAND



PANTOGRAPH (CAR) JACK



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ACCIDENTS

All motorists are advised to learn what to do at the scene of an accident, particularly where persons are injured. Injured people can choke to death if their air passages are not cleared. They can bleed to death unless the bleeding is stopped. They may require mouth-to-mouth resuscitation, may have to be moved, even though badly injured. It is important that you understand how to avoid further damaging an injured neck or back or other broken limbs.

The following notes may help.

- **Part 1. Accident — being involved**
- **Part 2. Accident — being a witness**
- **Part 3. Medical assistance**

Part 1. Accident — being involved

If you are involved in an accident you are advised to do as follows:

Stop immediately.

Remember that time is vital. Remain calm and alert. Think quickly and clearly.

Give all possible assistance to all injured persons. (See Part 3 Medical Assistance).

Send for police and ambulance if anyone has been injured. Send information as accurately as possible. Give the exact location, the number of injured people and a brief report on the overall situation.

Perhaps take charge of the situation.

Warn all other traffic approaching the scene. Turn off ignition switches. Stop any smoking near spilt petrol. In darkness, try and light up the area to warn others.

Clear the road of accident debris.

Exchange your name, address, vehicle registration number and the vehicle owner's name and address with the other parties involved in the accident.

If damage to property only has occurred, report the facts to the owner of the damaged property or to his or her representative; to any police present at the scene or to the nearest Police Station.

Try and note all important facts because such details may be important if needed later.

Part 2. Accident — being a witness

If you witness a road accident or it becomes your task to stop and help at the scene of an accident, do this:

Keep in mind that an observant witness can prove most helpful. Some day you yourself might be very glad of help from a witness.

DO NOT stop at the scene of an accident *just to be a spectator.*

Where other people are already in attendance and giving assistance, **you should stop only if you can contribute assistance.**

Give what assistance you can to any injured persons. (See Part 3 Medical Assistance.)

Follow most of the steps suggested in Part 1. Perhaps you may have to take charge of the accident situation.

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Part 3. Medical assistance

Keep calm and think clearly.

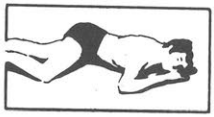
Your experience may not be much but do your best. Don't just stand by and let an injured person die.

• Look after the unconscious person first. Check for breathing. If no breathing, then check if air passages are clear, i.e. nose and mouth. Use your fingers to clear air passages if necessary. If the air way is clear then mouth-to-mouth resuscitation may be needed at once.

Unconscious people can choke.
Carefully turn to one side.
Tilt the head back slightly.
Wipe out the mouth with your finger to remove blood, vomit, broken teeth or dentures.

• You must be most careful in moving an injured person. Often it is best not to move at all but, in conditions of danger, this is not always possible. Serious and permanent damage can be done to an injured neck or back if not supported during movement. NEVER BEND A NECK OR BACK. KEEP THEM STRAIGHT. All injured limbs require support when an injured person has to be moved.

• Provided it is not dangerous to do so because of other injuries, an unconscious person will do best in the "coma position" illustrated here.



Lay the person on one side and — if will not aggravate any injuries — then: Bend the uppermost knee until the thigh is at right angle to body.
Bend the uppermost arm and elbow so that the hand lies near the face.
Gently pull the underneath arm so that it rests straight on the ground free of any body weight.

• Try to stop bleeding by applying direct pressure, using your hands, or by pressing torn flesh together. Use any clean cloth available. Fold cloths to make pads. If necessary, press one pad on top of another. Keep pressure around edge of a wound BUT NEVER USE A TOURNIQUET.

Shock may be treated by reassurance, relieving pain, controlling any bleeding and keeping the injured person warm *but not hot.* Best not to give any fluids and NEVER ALCOHOL.

• If the injured person is in danger and has to be moved, try and have three or four people help and concentrate on not bending the neck, spine and injured limbs. **Keeping the neck and spine straight is most important.**

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